CUMULATIVE INDEX 1901-1960

SCHOOL SCIENCE AND MATHEMATICS

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CUMULATIVE INDEX 1901-1960

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VOLUME LXVI NUMBER 9, Part II of II WHOLE 587

1127F

TABLE OF CONTENTS

PAGE

ELEMENTARY SCHOOL SCIENCE 1

Activity-Centered Teaching 1
Curriculum 1
Evaluation 3
Field Trips 3
Research Reports 3
Teachers 4
Teaching Techniques 4
Textbook and Teaching Aids 6

GENERAL; EARTH-SPACE; AND HEALTH SCIENCES 8

General Science Career Information 8
General Science Clubs 8
General Science Curriculum 9
General Science Evaluation 21
General Science Field Trips 22
General Science Laboratory Activities 22
General Science Research Reports 23
General Science Teachers 29
General Science Teaching Techniques 30
General Science Textbooks and Teaching Aids 36
Agriculture Clubs 37
Agriculture Curriculum 37
Agriculture Research 38
Agriculture Teaching Techniques 38
Astronomy Curriculum 38
Astronomy Teaching Techniques 39
Astronomy Textbooks and Teaching Aids 40
Earth Science Career Information 40
Earth Science Clubs 40
Earth Science Curriculum 40
Earth Science Evaluation 43
Earth Science Field Trips 43
Earth Science Laboratory Activities 43
Earth Science Research 43
Earth Science Teachers 43
Earth Science Teaching Techniques 43
Earth Science Textbooks and Teaching Aids 46
Engineering 46
Home Economics Curriculum 46
Home Economics Teaching Techniques 47
Meteorology Curriculum 47
Meteorology Teaching Techniques 47
Nature Study (General) 48
Nature Study Clubs 48
Nature Study Curriculum 48
Nature Study Research 49
Nature Study Teaching Techniques 49

Physiology and Hygiene Curriculum 49
Physiology and Hygiene Teachers 50
Physiology and Hygiene Teaching Techniques 50
Physiology and Hygiene Textbooks and Teaching Aids 50

BIOLOGY 51
Career Information 51
Clubs 51
Curriculum 51
Evaluation 57
Field Trips 57
Laboratory Activities 58
Research Reports 58
Teachers 60
Teaching Techniques 60
Textbooks and Teaching Aids 67

CHEMISTRY 68
Career Information 68
Clubs 68
Curriculum 68
Evaluation 72
Field Trips 73
Laboratory Activities 73
Mathematics in Chemistry 74
Research Reports 74
Teachers 76
Teaching Techniques 76
Textbooks and Teaching Aids 85

PHYSICS 87
Career Information 87
Clubs 87
Curriculum 87
Engineering Physics 91
Evaluation 91
Laboratory Activities 92
Mathematics in Physics 93
Research Reports 93
Teachers 95
Teaching Techniques 95
Textbooks and Teaching Aids 118

MATHEMATICS 120
Clubs 120
Curriculum 120
Evaluation 134
Laboratory Activities 134
Mathematics for Engineering 135
Research Reports 135
Teachers 138
Teaching Techniques 139
Textbooks and Teaching Aids 156

SUBJECT MATTER INFORMATION 158
Astronomy 158
Biology 158
Chemistry 163
Earth Science 166
Mathematics 168
Meteorology 172
Physics 172
Miscellaneous 177

GENERAL PEDAGOGY 180

MISCELLANEOUS 186
Books Received 186
Book Reviews 187
Departmental Notes on Teaching 190
Problem Department 190
Science Questions 192
Series of Articles. (Miscellaneous) 193
Central Association of Science and Mathematics Teachers . . . 195
General Articles Concerning CASMT 195
Announcements of Annual Conventions of CASMT 196
Minutes and/or Reports of Annual Conventions of the CASMT 196
Minutes of CASMT Board of Directors' Meetings 197
Reports of CASMT Convention Section Meetings 197
Agriculture Section 197
Biology Section 197
Chemistry Section 197
Conservation Section 198
Earth Science Section 198
Elementary Mathematics Section 198
Elementary School Group 198
Elementary Science Section 198
General Science Section 198
Geography Section 198
Home Economics Section 198
Junior College Group 198
Junior High School Group 198
Mathematics Section 199
Physics Section 199
Senior High School Group 199
CASMT Convention Registration Lists 199
List of CASMT Officers 199
CASMT Membership Reports 199
CASMT Treasurer's Reports 199
Reports of Regional CASMT Meetings 199
CASMT Committee Reports 200
Eastern Association of Physics Teachers Reports of Meetings . . 200
National Science Foundation 201
Miscellaneous Professional Organizations—Reports of Activities . 201

The Cumulative Index: School Science and Mathematics 1901-1960

by

George G. and Jacqueline V. Mallinson

Development of the *Cumulative Index*

The suggestion for a *Cumulative Index* for *School Science and Mathematics* emerged from a meeting of Departmental Editors at the Annual Convention of the CASMT in Chicago in 1961. The suggestion did not indicate whom should be responsible for the task, the volumes to be included, or the type of index that might be appropriate. However, the idea seemed to have enough merit for the Editor to refer the matter to the Board of Directors at its next meeting. As a result of its deliberations, the Board authorized a pilot study on the basis of which the Editor of *School Science and Mathematics* was charged with the responsibility of developing the *Cumulative Index*. It was agreed tentatively that the first *Cumulative Index* would cover the years 1901–1960, and that, hopefully, additional indices would appear for each succeeding ten-year period.

Obviously, the task of reviewing all the issues of *School Science and Mathematics* for 1901–1960, cataloging the materials, and preparing the *Index* was one of staggering dimensions and would require the efforts of many persons. The initial pilot study was undertaken by Mr. David I. Cohen, then a graduate student in science at Western Michigan University, and currently employed in science education in Australia. Once the *Index* was authorized by the Board, the task of making the initial review of all the materials in *School Science and Mathematics* for 1901–1960 and recommending the manner in which the *Index* should be organized was undertaken by Mr. Fred Meppelink, Jr., Science Teacher and Science Curriculum Coordinator, West Ottawa Public Schools, Holland, Michigan. This effort, covering approximately two years, was a key contribution to the production of the *Index* and its value cannot be underestimated. The major responsibility for preparing the final draft of the *Index*, reorganizing the materials, and supervising the various personnel who contributed, was that of the Assistant Editor of *School Science and Mathematics*. Many other persons in the School of Graduate Studies, Western Michigan University, must be given credit for the time they devoted, and especially for the patience they exhibited, in preparing the document for publication. Initially, citations for all entries in the Journal had to be typed on cards and checked several times for accuracy. Later, when the materials were categorized, a rough draft was prepared, rechecked, and then typed in final form. Among the persons who contributed to these tasks were Mrs. Carol Jordan, Mrs. Madeleine Flynn,

Mrs. Alicia Holdeman, Miss Janet Gostlin, Miss Paula McGraw, Miss Barbara Smith, and Miss Sue Fox, as well as Miss Virginia A. Mallinson and Mr. Cyrus J. Mallinson. Without their efforts, this document could not have been produced on schedule.

The invaluable advice of Mr. Gerald Schutkoske, George Banta Company, must also be acknowledged. His assistance, and that of other personnel of the George Banta Company made it possible for the *Index* to appear within the limits of time, effort and finances available. An *ad hoc* committee consisting of Herbert J. Stepaniak, Louis E. Shrode and James F. Ulrich also contributed by reviewing the plans for organizing the *Index*. The Editor regrets that space is not available to acknowledge fully the contributions of these and many other persons who are not mentioned.

The section that follows describes in some detail the manner in which the materials in the *Index* are organized, and some ways in which it may be used effectively.

Format of the *Index*

In deciding how the materials published in *School Science and Mathematics* 1901–1960 should be organized in the *Cumulative Index*, several matters had to be considered.

1. Because of the time span of the volumes included in the *Index*, more than 7,000 entries had to be classified. The classification was complicated greatly by the interdisciplinary nature of many of the articles. Thus, an effort to cross-reference articles would have produced an *Index* unwieldy in size. Consequently, in preparing the *Index*, it was decided to classify the materials within broad, rather than narrow, categories.
2. Although the desirability of including an author index was discussed, the problem of size militated against such a possibility.
3. In view of the wide variety of articles that have appeared in *School Science and Mathematics*, an index such as that prepared for a journal with a relatively narrow domain of articles was rejected. It was thought that the *Index* would be most useful if the articles were (1) classified according to the subject-matter areas of science commonly taught in the elementary and secondary schools, and (2) listed alphabetically by title under these areas. It was practically impossible to categorize the articles for mathematics according to areas such as algebra, trigonometry, or geometry because of their interdisciplinary nature. Hence, only one major heading appears for mathematics. On this basis, the *Index* may be viewed more as a compilation in which the user reviews the titles and selects those that are of interest or value to him, rather than a topical index.

As a result of the pilot study and subsequent analyses, it was decided to classify the materials under these major headings:

Elementary School Science
General; Earth-Space; and Health Sciences
Biology
Chemistry
Physics
Mathematics
Subject Matter Information
General Pedagogy
Miscellaneous

Articles were classified under these major headings on the basis of these characteristics:

1. Elementary School Science—articles dealing with the *teaching* of science at the elementary-school level.
2. General; Earth-Space; and Health Sciences—articles dealing with the *teaching* of general science in grades 7, 8 and 9; *plus* articles dealing with science at *all other levels*, that were interdisciplinary in nature (e.g., General Physical Science at the college level). This category also includes articles dealing with the *teaching* of areas of science often categorized with "general science," such as astronomy, meteorology and agriculture. These areas are identified with subheadings.
3. Biology—articles dealing with the *teaching* of biology, generally at the secondary-school and college levels.
4. Chemistry—articles dealing with the *teaching* of chemistry, generally at the secondary-school and college levels.
5. Physics—articles dealing with the *teaching* of physics, generally at the secondary-school and college levels.
6. Mathematics—articles dealing with the *teaching* of mathematics, at the elementary, junior-high-school, senior-high-school and college levels.
7. Subject Matter Information—articles dealing with subject matter rather than pedagogy, and designed to purvey knowledge.
8. General Pedagogy—articles dealing with general problems of teaching or of education; not related to any specific area of science or mathematics, or academic level.
9. Miscellaneous—articles concerning professional organizations such as the Central Association of Science and Mathematics Teachers; and listings of series of articles or special features of the Journal, including "Book Reviews" and the "Problem Department." The Table of Contents lists in detail the areas included under this heading.

Within the first six major headings listed above, articles were further classified under these subheadings:

1. Careers—articles dealing with vocational opportunities.
2. Clubs—articles dealing with the organization and/or operation of science or mathematics clubs, mainly at the secondary-school level.
3. Curriculum—general discursive articles concerning curriculum in the respective areas, including courses, sequences, and objectives.
4. Evaluation—articles concerning testing procedures, examinations and grading.
5. Field Trips—articles dealing with field trips and excursions.
6. Laboratory Activities—general discursive articles dealing with the philosophy and procedures of laboratory work.
7. Research Reports—reports of research studies or reviews of research.
8. Teachers—articles dealing with the characteristics and preparation of teachers.
9. Teaching Techniques—a broad category, dealing with topics such as teaching hints, methods, laboratory suggestions, furniture and apparatus.

The Table of Contents on pages i through iii lists the subheadings included under the major headings Subject Matter Information, General Pedagogy and Miscellaneous.

During the preparation of the final draft, it was thought desirable to index features of the Journal such as articles related to professional organizations, book reviews and problems, since many of these entries were of significant historical interest. These are classified under the major heading, "Miscellaneous."

Points of Interest

During the production of the *Cumulative Index*, several observations were made that seem worthy of mention:

1. The *Index* is a criterion of the history and evolution of science and mathematics education in the United States. For example, the impact of the 31st Yearbook of the NSSE, *A Program for Science Teaching*, may be noted by the dates of the appearance of many articles dealing with elementary-school science.
2. The impact of modern transportation may be observed indirectly in that, during the early years of the CASMT, there were many regional CASMT groups such as the "Chicago Group," and the "Cleveland Group." This suggests that it was not so easy for the entire organization to convene as it is now.
3. One often categorizes the present day as an era of initials and organizations. However, a perusal of the section, "Miscellaneous Professional Organizations—Reports of Activities" reveals that in

the first two or three decades of the Twentieth Century, there appeared to be an almost endless number of professional science and mathematics organizations.

4. The problems faced by educators today are not new and differ little from those faced by science and mathematics teachers in the last six decades. If dates are disregarded, it would be difficult to guess from the *title* when an article was published. Educators are still battling, and writing about, the same problems and questions they did in 1900, 1910, 1920 and 1930. One noticeable change is the style of clothing in the children and adults shown in the advertisements that appear in the earlier issues of the Journal!
5. The history and development of the CASMT is evident from a perusal of its reports. For example, the "birth" and "death" of CASMT Sections may be inferred by scanning the *Index* listing. How many readers know there was once a "Home Economics" Section and an "Agriculture" Section? When did Elementary Mathematics "come into its own?" When (and why) did the Geography Section disappear?

ELEMENTARY SCHOOL SCIENCE

Activity-Centered Teaching

Adding Interest to the Elementary Science Classroom, by Dorothy V. Phipps. 39:210-8, Mr '39.

Answering Children's Questions Through Science Experiences, by Anthony Cordell. 49: 395-401, My '49.

Functional Outcomes and Purposeful Activities in Elementary Science, by W. C. Croxton. 39:309-15, Ap '39.

Let's Do An Experiment, by Glenn O. Blough. 35:603-5, Je '35.

Materials and Equipment for the Teaching of Elementary Science, by Veva McAtee. 39:15-28, Ja '39.

Selecting and Organizing Activity-Suggestions for Elementary Science Courses of Study, by Walter A. Thurber. 43:312-34, Ap '43.

"Selling" Elementary Science, by Gordon MacLeod Taylor. 36:479-85, My '36.

The Use of Animals in Science Units for Fifth Grade Pupils, by Faye Grant. 48: 335-40, My '48.

Why Demonstrations?, by Beatrice M. Moore. 55:307-10, Ap '55.

Curriculum

A Comparative Study of Nature Education Philosophies, by E. Laurence Palmer. 36: 897-903, N '36.

A Guide for the Study of Elementary Science, by Marguerite Eaglin. 56:485-90, Je '56.

A Study of the Moon, by Frances Snyder. 35: 685-90, O '35.

A Survey of Procedures in Planning Elementary Science Curricula, by David W. Russell. 36:863-70, N '36.

A Teacher's Approach to the Problems in Teaching Elementary Science, by Ira C. Davis. 34:275-83, Mr '34.

A Unified Science Course for the Intermediate Grades, by Martha June Jones. 38: 75-80, Ja '38.

An Elementary Science Program for the Air Age, by Edward P. Powers. 44:315-9, Ap '44.

Astronomy in the Elementary School, by John Sternig. 44:36-42, Ja '44.

Basic Considerations for Nature Study and Science Instruction in the Elementary School, by Ernest E. Bayles. 36:993-1004, De '36.

"Better Now - or Now"...Two Views of an Elementary Science Program, by Sister Jean Marie, R.S.M. 59:465-71, Je '59.

Camping, an Important Part of a Child's Education in Elementary Science, by William Gould Vinal. 34:393-4, Ap '34.

Changes and Analysis of the Changes in the Subject Matter and Method of Teaching Science in School "A", by Jerome Leavitt. 44: 823-30, De '44.

Child Interest in Curriculum Building, by Grace S. Nugent. 41:664-8, O '41.

Conservation and Camping, by Nina P. Boyd. 57:685-8, De '57.

Conservation Education in Elementary Schools, by Anna E. Burgess. 50:455-60, Je '50.

Conservation Teaching in the Fifth Grade, by Dwight K. Curtis. 42:116-25, Fe '42.

Consultative Work in Geography as a Means of Improving its Teaching, by Alison E. Aitchison. 20:499-500, Je '20.

Creativity in the Teaching of Elementary Science, by Illa Podendorf. 58:286-9, Ap '58.

Developing a Sound Science Program for Elementary and Junior High Grades, by Richard G. Telfer. 55:345-9, My '55.

Developing Critical Thinking Through Elementary Science, by Gordon M. Dunning. 51: 61-3, Ja '51.

Double Classes in Science and Mathematics, by H. K. Moore. 33:985-8, De '33.

Elementary School Science Curriculum Construction in Ypsilanti, Michigan, by Martha E. Curtis. 56:480-3, Je '56.

Elementary Science and Society, by Illa Podendorf. 47:549-54, Je '47.

Elementary Science in an Integrated Program, by Sylvester J. Siudzinski. 47: 348-52, Ap '47.

Elementary Science in the Elementary Schools of St. Louis, by L. M. Dougan. 22: 447-50, My '22.

Elementary Science Teaching, by Philip B. Sharpe. 38:120-5, Fe '38.

Elementary Science - Where Is it Going?, by Walter A. Thurber and R. E. Bowers. 42: 612-5, O '42.

Enthusiasm in Elementary Science Teaching, by Garnet Todd. 47:44-5, Ja '47.

Factors Conditioning the Development of Understandings in Beginning Science, by Geraldine Shontz. 35:411-5, Ap '35.

Factual Material in Early Childhood Education, by Viggo Bovbjerg. 39:797-804, De '39.

First Years in Science - What Are the Goals?, by Bertha Stevens. 38:36-40, Ja '38.

Generalization in Elementary School Science, by G. W. Haupt. 34:574-7, Je '34.

Grade Placement in Elementary School Science, by G. W. Haupt. 35:858-64, N '35.

Guiding Principles in Curriculum Making for Science in the Elementary School, by Lewis R. Fisher. 49:631-8, N '49.

Hiking Into the Elementary Science Curriculum, by Herbert A. Sweet. 41:256-9, Mr '41.

History of the Science Curriculum Building in Ypsilanti Public Schools, by Arlah Phillipp. 56:483-5, Je '56.

How Effective Is Science in the Elementary School?, by Samuel W. Bloom. 59:94-8, Fe '59.

How Elementary Science Can Help Children with Their Wartime Needs, by David W. Russell. 44:221-4, Mr '44.

How Will Our Children Learn Conservation?, by Raymond Kenyon. 55:480-2, Je '55.

Human Conservation, by James Sanders. 53: 5-11, Ja '53.

Improving Primary Grade Science by Problem Teaching, by Charlotte V. Junge. 43:438-46, My '43.

Integration of Arithmetic with Science Through the Study of Weather in the Elementary School, by M. Ira Dubins. 57: 121-30, Fe '57.

Is Elementary Science Important?, by Anna E. Burgess. 47:337-40, Ap '47.

Making Science Live for the Child, by Sister M. Aquinas. 51:699-707, De '51.

Methods and Devices Used in my Teaching at Montefiore Special School, by Mary A. Gillies. 44:357-66, Ap '44.

Nature Study in the Grades, by Lincoln M. Rutledge. 4:439-42, Fe '04.

On Physics for the First Grade, by Raymond J. Seeger. 60:169-78, Mr '60.

Opportunities for Science Teaching in the Elementary Grades, by Doris Young. 54: 337-9, My '54.

Physics in the Grades Below the High School, by John H. McClellan. 14:504-15, Je '14.

Physics in the Grades Below the High School, by Earl R. Glenn. 14:666-73, N '14.

Physiology and Hygiene in Our Elementary Schools, by Edgar F. Van Buskirk. 10:474-7, Je '10.

Primary Children Experience Science, by Gladys Forler, Marjorie Pratt, and Meridel Underwood. 39:514-9, Je '39.

Science and Arithmetic in the Elementary School Curriculum, by Whit Brogan. 39: 149-55, Fe '39.

Science and Arithmetic in the Fifth Grade, by Mary T. Johnson. 54:742-7, De '54.

Science and School Camping, by Gladys Friesner. 53:1-3, Ja '53.

Science in the Beginning School Program, by Mary Samter. 55:368-75, My '55.

Science in the Elementary School, by Harry A. Carpenter. 30:613-4, Je '30.

Science in the Elementary School, by Mary Melrose. 41:269-79, Mr '41.

Science in the Elementary School Curriculum, by Jennie Hall. 31:1038-47, De '31.

Science in the Elementary School Program, by Glenn O. Blough. 36:255-8, Mr '36.

Science in the Grades, by Vesta Holt. 23: 21-6, Ja '23.

Science in the Kindergarten, by Erma Kotchian. 54:425-7, Je '54.

Science Materials and Activities Important in Remedial Reading, by Haley D. Worthy. 41:507-12, Je '41.

Science Teaching in the Grades, by M. J. Phillips. 19:720-1, N '19.

Should Elementary Science Be a Required Prerequisite for the Study of Biology?, by May A. Bennett. 30:617, Je '30.

Some Problems that Must Be Answered in Elementary Science, by O. J. LuPone. 38:666-72, Je '38.

Some Trends and Problems in Teaching Science in the Elementary School, by M. Ira Dubins. 57:21-31, Ja '57.

Teaching Science in an Elementary School that Uses the Unit Method of Instruction, by Helene Nichols. 35:63-8, Ja '35.

Teaching Scientific Method, by Jennie Hall. 34:693-9, O '34.

The Articulation of Science Teaching in the High School with That in the Grades, by S. A. Douglass. 7:631-9, N '07.

The Atom and the Elementary School, by Clifford Coles, William Early, and William Wolfer. 50:181-5, Mr '50.

The Development of a Conservation Program in the Public Schools, by Russell S. Way. 56:134-6, Fe '56.

The Functions of a Nature Study and What It Can Do as a Preparation for High School Biology, by Gertrude A. Gillmore. 4:136-8, Je '04.

The Nature Study and Elementary Science Movement, by Florence Weller and Otis W. Caldwell. 33:730-40, O '33.

The Place of Elementary Science in the Curriculum, by Dorothy Miller. 48:379-87, My '48.

The Place of Nature Study in the Elementary School Curriculum, by S. H. Williams. 20: 838-41, De '20.

The Purpose of Teaching Elementary Science, by Science Elementary Curriculum Committee. 46:433-7, My '46.

The Role of Elementary-School Science in the Modern Curriculum, by Jacqueline Mallinson. 60:525-8, O '60.

The Science of the Elementary School and Its Relation to the Science of the Junior High School, by Gerald S. Craig. 29:487-93, My '29.

The Science Situation, by Ira C. Davis. 30: 615-7, Je '30.

The Significance of Science to the Pupil in the Elementary School, by Mary Melrose. 33: 819-25, N '33.

The Teaching of Science Below the High School, by S. E. Coleman, Percy E. Rowell, and George Barton. 14:711-3, N '14.

The Teaching of Science in Schools, by Henry A. Perkins. 5:691-8, De '05.

The "What" in Elementary Science Education, by Edgar A. Baird. 40:7-10, Ja '40.

Vitalizing the Elementary Science Program, by Edward Powers. 47:267-9, Mr '47.

What is Elementary Science?, by Eggert Meyer. 53:235-6, Mr '53.

What We Would Teach in Science if We Were to Emphasize the Needs of Children, by Hazel Seguin. 43:225-33, Mr '43.

Evaluation

Evaluating Elementary Science Teaching, by Winifred Packer. 56:725-30, De '56.

Evaluating the Intangibles in Elementary Science, by O. J. LuPone. 39:754-9, N '39.

Field Trips

The Science Excursion as a Teaching Technique, by George E. Pitluga. 47:460-9, My '47.

Research Reports

Activities, Content, and Objectives of Recently Published Elementary Science Units, by Miles V. Zintz and Paul E. Kambly. 41: 638-44, O '41.

Atomic Energy Concepts of Children in Third and Sixth Grade, by Doris Young. 58: 535-9, O '58.

Children's Interests in Science as Indicated by Choices of Reading Materials, by Vivian D. Von Qualen and Paul E. Kambly. 45:798-806, De '45.

Helping the Elementary Science Teacher, by Grace Curry Maddux. 49:534-7, O '49.

How Fifty-One Well-Known Educators Answered a Questionnaire Concerning the Teaching of Science in the Elementary Grades, by David W. Russell. 38:907-21, N '38.

Implications of Research in Elementary School Science Education, by Harry Milgrom. 57:600-12, N '57.

Implications of the Findings of Recent Research in Elementary-School Science Education, by Muriel Beuschlein. 58:610-3, N '58.

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Knowledge of Science Possessed by Pupils Entering Seventh Grade, by Harvey D. Matteson and Paul E. Kambly. 40:244-7, Mr '40.

Preparation of Ohio Elementary Teachers in the Field of Science, by Warren M. Davis. 40:238-43, Mr '40.

Pupils' Ability to Generalize, by W. C. Croxton. 36:627-34, Je '36.

Radio Lessons in Elementary Science, by Mary Melrose. 36:137-41, Fe '36.

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Review of Research in Elementary Science Education, by Betty Lockwood Wheeler. 59: 624-9, N '59.

Science Content in the Elementary School, by Alice Gilbert. 43:769-73, N '43.

Scope and Sequence of Elementary School Science, by Richard F. Bruns and Alexander Frazier. 57:560-8, O '57.

Some Studies of Children's Interests in Science Materials, by Chas. W. Finley. 21: 1-24, Ja '21.

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The Effectiveness of a Television Series in Improving Kindergarten to Grade 2 Science Teaching Programs, by William B. Reiner. 59:397-408, My '59.

The Spontaneous Remarks of Children Concerning Magnetic Phenomena, by Alfred A. Silano. 52:477-82, Je '52.

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Guidance - A Part of Science Teaching, by Nelson L. Lowry. 53:685-6, De '53.

Guidance and the Science Teacher, by Arthur G. Hoff. 42:658-60, O '42.

Guides in Junior High School Science, by M. G. McFadden. 32:140-2, Fe '32.

High School and Community, by Otis W. Caldwell. 34:933-41, De '34.

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High School Science and Mathematics - For Whom and For What?, by Charles W. Sanford. 50:307-19, Ap '50.

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How A City Plans for Conservative Education, by Charles H. Philpott. 46:691-5, N '46.

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How Can I Teach General Science?, by John C. Hessler. 16:518-23, Je '16.

How Can Sex Education Be Made a Part of General Science?, by E. F. VanBuskirk. 19:789-94, De '19.

How General Science Began, by Hanor A. Webb. 59:421-30, Je '59.

How Good Teachers Teach Science, by R. Will Burnett. 55:249-70, Ap '55.

How Inspirational is Your Teaching?, by Frank W. Hanson. 31:524, My '31.

How Science and Mathematics Are Taught in the Missouri Schools, by John L. Bracken. 37:209-15, Fe '37.

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Instructional Materials for a New Course in Physical Science, by H. W. Haggard. 40: 334-7, Ap '40.

Integrated Learning as a Result of Exercises in Mathematics and Science, by William H. Payne. 57:37-40, Ja '57.

Integration of Secondary School Mathematics and Science, by E. R. Breslich. 36:58-64, Ja '36.

Intensive Industrial Training, by E. Clark Woodward. 46:159-63, Fe '46.

Is General Science Destined to Go Down Into the Junior High School? If So, What Will Be the Content of the Course?, by John C. Hessler. 22:246-51, Mr '22.

Is There a "Royal Road to Science?," by Hanor A. Webb. 15:679-85, N '15.

Is There Just One Scientific Attitude?, by George J. Skewes. 34:430-1, Ap '34.

Just Stand Out of the Way!, by Paul Westmeyer. 57:643-6, N '57.

Learning the Scientific Method Through the Historical Approach, by Aaron J. Ihde. 53: 637-43, N '53.

Let's Get Together!, by Howard C. Kelly. 30:520-5, My '30.

Look Ahead in High School Science, by Robert J. Havighurst. 44:116-21, Fe '44.

Looking Ahead in Science Teaching, by Charles H. Lake. 34:136-43, Fe '34.

Major Problems in the Teaching of Natural Science, by Ernest E. Bayles. 31:1048-55, De '31.

Mass Education, by D. M. MacMaster. 53:97-101, Fe '53.

Mathematics and Conservation in National Defense, by Milton O. Pella. 42:529-33, Je '42.

Mathematics and General Science Cooperate in Junior High School, by Jules H. Fraden and Paul M. Tully. 40:541-4, Je '40.

Mathematics and Science, by Charles N. Moore. 38:41-52, Ja '38.

Mathematics and Science in a Liberal Education, by Mark H. Ingraham. 45:128-35, Fe '45.

Mathematics and the Progress of Science, by Louis C. Karpinski. 29:126-32, Fe '29.

Mathematics Instruction and Scientific Manpower, by Howard F. Fehr. 54:169-72, Mr '54.

Meeting Student Needs by Integration, by Charlotte L. Grant. 51:193-8, Mr '51.

Methods of Presenting a One Year Integrated Science Course, by F. C. MacKnight. 59: 730-9, De '59.

Mind, Mathematics and Machines, by G. T. Hunter. 58:191-201, Mr '58.

Modern Curriculum Problems in the Physical Sciences, by Gerald Osborn. 60:524-5, O '60.

Modern Curriculum Problems in the Physical Sciences, by Gordon Noble. 60:528-32, O '60.

Modern Technics in First Aid, by Eugenia Couden. 41:119-23, Fe '41.

Motivating the High School and College Science Student, by Gerrit Van Zyl. 55:610-4, N '55.

Naive Questions and Science Teaching, by Thomas H. Briggs. 23:34-40, Ja '23.

Nature and Control of the Power that Exists in Modern Scientific Knowledge, by Harold H. Punke. 53:53-61, Ja '53.

Nectar for the Science Bee, by William D. Fritz. 56:297-9, Ap '56.

New Wine in Old Bottles, by George W. Hunter. 26:16-24, Ja '26.

Notes on Hartford Science Methods, by Elbert C. Weaver. 31:636, My '31.

Now We Have General Education, by Raymond L. Krueger. 54:53-7, Ja '54.

Objectives of Natural Science, by Paul Nurnberger. 25:927-36, De '25; and 26:33-43, Ja '26.

Objectives of Science Teaching, by H. B. Hass. 46:47-50, Ja '46.

Old Concepts with New Ideas, by Sister Mary Cecilia Bodman, B.V.M. 60:235-40, Mr '60.

On Courses on Recent Developments in Science, by Stanley W. Morse. 47:625-6, O '47.

On the Responsibilities of Teachers with Special Training in Science, by Samuel R. Powers. 40:738-48, N '40.

On the Scientific Method, by Charles A. Compton. 53:372-4, My '53.

One Answer, by Willis Swales, Jr. 58:357-60, My '58.

One Thousand and Two Childish Questions, by Hanor A. Webb. 38:504-10, My '38.

Organization - In Preparing a Technical Paper, by M. D. Stone. 60:269-72, Ap '60.

Organization of General Science in the Seventh and Eighth Grades of the Junior High School and the Ninth Grade of the Four Year High School, by Ira C. Davis. 24:487-94, My '24.

Orientation in Conservation, by O. D. Frank and John C. Mayfield. 44:1-5, Ja '44.

Our Land and Our Living, by Ralph M. Kriebel. 46:199-205, Mr '46.

Outside Reading in Science in Secondary Schools, by L. E. Hildebrand. 28:61-3, Ja '28.

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Physical Geography Versus General Science, by H. W. Fairbanks. 10:761-72, De '10.

Physical Geography Versus General Science, by C. R. Mann. 11:17-9, Ja '11.

Physical Science in a Modern Science Curriculum, by Roy D. Meiller. 60:259-61, Ap '60.

Plant Studies Should Precede Animal Studies in a High School Course in General Science, by John F. Garber. 14:240-4, Mr '14.

Point Four and American Science Teaching, by Cedric Seager. 53:201-6, Mr '53.

Possible Techniques for the Development of Some Scientific Attitudes, by Carleton E. Power. 39:251-7, Mr '39.

Possibilities of Home Work in General Science, by G. A. Bowden. 20:327-36, Ap '20.

Practical Avocational Science, by Bernal R. Weimer. 32:44-7, Ja '32.

Preliminary Report of the Committee on a Unified High School Science Course, by Otis W. Caldwell. 14:166-8, Fe '14.

Preparing Our Students for the Scientific Age, by Rogers E. Randall. 53:427-8, Je '53.

Present Needs of Science Instruction in Secondary Schools, by Robert A. Millikan. 20:101-4, Fe '20.

Principles of Conservation that are Important in Science, by Edward M. Ray. 57:419-26, Je '57.

Problems Associated with the High School Science Sequences, by Thomas Smyth. 40: 255-9, Mr '40.

Problems Facing General Science Teachers, by Walter A. Thurber. 44:457-61, My '44.

Projects for Greater Learning, by Gerald Scrivens. 60:519-20, O '60.

Project Teaching in General Science, by G. H. Trafton. 21:315-22, Ap '21.

Project-Techniques Relative to Exhibitions, by Maitland P. Simmons. 40:434-8, My '40.

Providing a Challenging Program in Mathematics and Science for Pupils of Superior Mental Ability, by James W. Gebhart. 52: 335-8, My '52.

Providing a Challenging Program in Mathematics and Science for Pupils of Superior Mental Ability, by Eugene F. Peckman. 52: 187-93, Mr '52.

Providing a Challenging Program in Science and Mathematics for Pupils of Superior Mental Ability, by Ona Kraft. 52:143-7, Fe '52.

Psychology in Secondary Schools, by Edmund S. Stoddard. 41:468-71, My '41.

Public Partnership in Science Guidance, by Samuel Ascher and Philip Nichamin. 56:151-3, Fe '56.

Radio In Post-War Education, by Nathan A. Neal. 45:154-67, Fe '45.

Reading, A Contributing and Concomitant Factor in the Study of Science, by Homer L. J. Carter. 54:567-70, O '54.

Recent Trends in Conservation Education, by Richard Lee Weaver. 38:647-53, Je '38.

Related Science and Vocational Curricula, by DeWitt E. Myers and N. M. Downie. 50:703-7, De '50.

Remove the Roadblocks, by Ernest G. Lake. 54:223, Mr '54.

Report of Committee on College Entrance Requirements, by Frederick E. Sears. 32: 533-4, My '32.

Report of Group Conference on Modernizing Our Secondary School Science, by Raymond W. Osborne. 31:608-9, My '31.

Report of the Committee of The Central Association of Science and Mathematics Teachers' Committee on the Unified High School Science Course, by Otis W. Caldwell (Chrm.). 15: 344-6, Ap '15.

Research and Engineering in an Industrial Laboratory, by Michael Ference, Jr. 59:36-47, Ja '59.

Research and the Scientific Method, by M. Luckiesh. 34:411, Ap '34.

Research in Pure Science a Factor in National Defense, by Martha Sue Aydelott. 41:758-60, N '41.

Research - Servant or Master?, by William B. Reiner. 53:154-6, Fe '53.

Resource Stewardship in a Program of Education, by R. S. Ihlenfeldt. 56:187-92, Mr '56.

Responsibilities of Scientists and Teachers of Science, by Sr. M. Ellen O'Hanlon. 42: 225-38, Mr '42.

Revision of Entrance Requirements in Michigan Colleges, by George E. Carrothers. 35: 241-4, Mr '35.

Science and Experience, by William G. Fuller. 27:264-6, Mr '27.

Science and Human Welfare, by Jas. K. Hunt. 40:605-13, O '40.

Science and International Understanding, by E. C. Stakman. 52:11-8, Ja '52.

Science and Its Recognition in the High School Curriculum, by A. C. Monahan. 30: 875-80, N '30.

Science and Mathematics for Today's Youth, by Arno H. Luehman. 55:725-30, De '55.

Science and Mathematics in Army Service, by Captain Daniel C. McNaughton. 45:105-11, Fe '45.

Science and Mathematics in Educational Programs for Returning Service Men and Women. 44:517-20, Je '44.

Science and National Defense, by Veva McAtee. 42:558-9, Je '42.

Science and Opinion, by Thomas W. Gosling. 34:913-8, De '34.

Science and the Curriculum, by Edward K. Weaver. 59:138-50, Fe '59.

Science and the Language Arts - Complementary Subjects, by Sister M. Anne Paula. 57: 333-7, My '57.

Science and the Victory Corps Program in Boulder High School, by G. D. McGrath. 43: 475-7, My '43.

Science as a Field of Training in the Basic Language Skills, by J. F. Snodgras. 46:131-9, Fe '46.

Science as a Means of International Unity, by Harvey A. Zinszer. 30:795-801, O '30.

Science Counseling in Secondary Schools, by R. W. Lefler. 47:215-21, Mr '47.

Science Education and World Understanding, by George Greisen Mallinson. 52:531-8, O '52.

Science Education at the Junior-High-School Level, Circa 1776-1827, by Heber Eliot Rumble. 42:724-8, N '42.

Science Education at the Junior-High-School Level During the Colonial Period, by Heber Eliot Rumble. 43:765-8, N '43.

Science Education for the Masses, by Floyd E. Somerville. 38:204-6, Fe '38.

Science Fairs for Correlation of Subject Matter, by Ronald L. Whitney. 41:447-8, My '41.

Science for All, by Butler Laughlin. 48: 169-76, Mr '48.

Science for Curriculum Enrichment, by Katherine M. Masley. 36:278-81, Mr '36.

Science for Modern Living, by E. Eugene Irish. 53:39-47, Ja '53.

Science, General Education, and the National Welfare, by Frederick L. Hovde. 47:105-13, Fe '47.

Science in Education, from the Viewpoint of Benjamin Franklin, by Karl T. Compton. 38: 207-14, Fe '38.

Science in the Chicago Public Schools, by William H. Johnson. 38:899-906, N '38.

Science in the Curriculum with Special Reference to College-Going Students, by G. Robert Koopman. 59:24-31, Ja '59.

Science in the Junior High School, by J. B. Kelley. 58:135-7, Fe '58.

Science in the Secondary Schools, by R. A. Millikan. 17:379-87, My '17.

Science in the Southland, by Peter Blos. 37:30-47, Ja '37.

Science, Mathematics and Safety, by Sidney J. Williams. 41:2-6, Ja '41.

Science, Mathematics and the War, by Homer W. LeSourd. 42:517-9, Je '42.

Science Progress, by Roy D. Welch, Jr. 57: 523-8, O '57.

Science Serving Community Needs, by Paul V. Beck. 41:730-9, N '41.

Science Serving the Student, by Paul V. Beck. 40:824-7, De '40.

Science Shows or Science Classes?, by Louis R. Welch. 36:651-3, Je '36.

Science Teaching Preparatory for the High School, by Herbert Brownell. 2:251-5, N '02.

Science - Truth or Propaganda?, by Otis W. Caldwell. 33:26-33, Ja '33.

Scientific Interdigitation, by Frederick F. Yonkman. 45:301-6, Ap '45.

Scientific Method and Social Science, by Joseph Mayer. 54:456-60, Je '54.

Scope and Division of the Field of Science, by Rolland Merritt Shreves. 17:596-9, O '17.

Selling Physics and Chemistry, by P. M. Bail. 30:195-7, Fe '30.

Should General Science Be So General?, by Paul D. Preger, Jr. 58:710-2, De '58.

Some Aspects of Science Teaching in Relation to Civilian Defense, by Nathan A. Neal. 42:711-8, N '42.

Some Challenging Problems in Teaching High School Science to Gifted Children, by Harry A. Cunningham. 52:373-80, My '52.

Some Comments from Science Instructors and Others, by A. C. Monahan. 31:569-73, My '31.

Some Considerations Regarding Science and Education, by Otis W. Caldwell. 37:840-3, O '37.

Some Desirable Curriculum Adjustments in Science and Mathematics, by Walter H. Carnahan. 41:103-14, Fe '41.

Some Educational Implications of Recent Developments in Science, by H. Emmett Brown. 33:490-505, My '33.

Some Effects of the Depression Upon the Teaching of Science, by Francis D. Curtis. 34:345-60, Ap '34.

Some Experimental Results in the Teaching of Elementary Science, by G. M. Ruch. 16:49-51, Ja '16.

Some Middle of-the-Road Questions about Consumer Science Courses, by Kenneth H. Garren. 41:407-11, My '41.

Some Next Steps in Science Teaching, by Otis W. Caldwell. 29:9-20, Ja '29.

Some Observations on Educational Problems in the United States with Particular Reference to Mathematics and Science, by Harold C. Urey. 58:168-74, Mr '58.

Some Personal Experiences with General Science, by J. C. Gould. 17:298-303, Ap '17.

Some Proposals for a United Science Front, by Geo. K. Peterson. 43:652-6, O '43.

Some Recent Tendencies in Teaching Procedures for General Science, by Ralph K. Watkins. 29:347-52, Ap '29.

Some Suggestions for a General Science Course, by Elizabeth Bayer. 19:774-8, De '19.

Some Tangible Results from a Course in General Science, by George Mounce. 20:623-6, O '20.

Some Techniques in the Teaching of Conservation, by Charlotte L. Grant. 43:418-22, My '43.

Some Techniques in the Teaching of Grade Science and Its Application to Secondary School Science, by O. J. LuPone and Edward Powers. 48:724-8, De '48.

Some Things Science Study Should Do for the Student, by Harvey L. Long. 29:27-34, Ja '29.

Some Thoughts On Method in Science Instruction, by N. Gist Gee. 24:958-67, De '24.

Streamlining General Science for an Air-Minded Generation, by Standish Deake. 43: 567-71, Je '43.

Strengthening High School Science Teaching, by Henry Flury. 22:370-3, Ap '22.

Subject Matter and Educational Objectives, by Isidor Auerbach, Abram Bader, and Allen A. Reich. 48:62-8, Ja '48.

Successful Practices and Provisions for Enriching the Educational Program for Gifted Students in Junior High School Mathematics and Science, by Monte S. Norton. 59: 101-6, Fe '59.

Suggestions as to Changes in Entrance Requirements in Science, by W. J. A. Bliss. 22:814-25, De '22.

Suggestions for the Study of Nuclear Energy in the Secondary Schools, by Theodore W. Munch. 57:722-8, De '57.

Summary of History Without Generals, by C. C. Furnas. 40:37-9, Ja '40.

Teaching Applied Science, by C. A. Adams. 19:859, De '19.

Teaching Highway Safety Through High School Sciences, by Herbert J. Stack. 33:746-50, O '33.

Teaching of Conservation at University Level, by J. E. Potzger. 50:284-8, Ap '50.

Teaching Photography in High School, by Dean Challis. 37:1096-8, De '37.

Teaching Science for General Education in the Secondary School, by G. P. Cahoon. 49: 281-8, Ap '49.

Teaching Science Through Television, by Josephine F. Bordonaro. 52:344, My '52.

Teaching Scientific Method, by Wilbur L. Beauchamp. 34:508-10, My '34.

Teaching Scientific Method, by Elliot R. Downing. 34:400-5, Ap '34.

Teaching Scientific Method, by Maurice L. Hartung. 34:596-600, Je '34.

Teaching Scientific Method, by Ellsworth S. Obourn. 34:969-72, De '34.

Teaching Scientific Method in the Junior High School, by H. G. McMullen. 48:459-68, Je '48.

Teaching Scientific Methods, by Francis D. Curtis. 34:816-9, N '34.

Teaching Techniques for Slower Students in Army College Training Programs, by G. D. McGrath. 45:335-40, Ap '45.

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The Atomic Age, by J. E. Potzger. 52:546-8, O '52.

The Backbone of Clear Thinking, by David Skolnik and Aaron Goff. 52:629-36, N '52.

The Challenge of Science and Mathematics in a Free World, by Louis Panush. 58:165-7, Mr '58.

The Challenge to High School Science Teachers, by A. H. Drummond, Jr. 57:447-9, Je '57.

The Combined Introductory Course in Secondary Science, by H. W. Baker. 41:428-31, My '41.

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The Development of a Course in Physical Science, by Glenn H. Updike. 51:141-7, Fe '51.

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The Early Identification of Potential Scientists, by Samuel W. Bloom. 55:287-95, Ap '55.

The Effect of the Airplane on the Science of Navigation, by Robert R. Sweeney. 43: 66-8, Ja '43.

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The Future of Specialized Sciences in High Schools, by Sherman R. Wilson. 40:115-8, Fe '40.

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The Impact of Industry on Science, by Gustav Egloff. 54:101-6, Fe '54.

The Indianapolis Science Story, by Newton G. Sprague. 59:373-80, My '59.

The Junior Academy in the Emergency, by Louis A. Astell. 42:823-6, De '42.

The Junior High School Science Program, by Paul E. Kambly. 44:225-31, Mr '44.

The Laboratory-Problem Project Method of Teaching General Science, by Erma B. McCaffrey. 26:966-73, De '26.

The Meaning of Science and Technology in Western Civilization, by Carl F. Klocksin. 58:697-702, De '58.

The Movement Toward a Unified Science Course in Secondary Schools, by Harold B. Shinn. 14:778-82, De '14.

The Natural Sciences at the Junior High School Level, by Sister Mary Ellen O'Hanlon. 51:183-92, Mr '51.

The Need and Scope of a First Year General Science Course, by R. O. Austin. 11:217-24, Mr '11.

The Need for Standards in Courses in the Teaching of General Science, by J. O. Frank. 28:380-8, Ap '28.

The Newness of Science in the Public High School Curriculum, by A. C. Monahan. 31: 327-32, Mr '31.

The New Science and Mathematics, by John R. Mayor. 60:285-7, Ap '60.

The Objective of Science Education, by Norris W. Rakestraw. 58:720-1, De '58.

The Outlook for General Science, by Charles H. Lake. 23:268-77, Mr '23.

The Philosophy of General Science, by Edwin E. Slosson. 25:9-20, Ja '25.

The Philosophy of Technical Education, by Harry M. Keal. 44:12-23, Ja '44.

The Physical Sciences in High School and College, by John C. Hessler. 17:567-82, O '17.

The Place and Value of General Science, by E. A. Stewart. 17:777-83, De '17.

The Place of Cooperative Education in a Peacetime Program, by Ovid W. Eshbach. 46: 299-303, Ap '46.

The Place of General Science in the High School, by John Calvin Hanna. 20:516-26, Je '20.

The Place of Nature in Man's World, by Paul Shepard, Jr. 58:394-403, My '58.

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The Problem of Science Teaching in the Secondary Schools, by R. A. Millikan. 25: 966-75, De '25.

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The Program for Science in 1950, by Morris Meister. 39:103-16, Fe '39.

The Project and Project Method in General Science, by Garfield A. Bowden. 22:439-46, My '22.

The Project as a Method of Teaching, by Rolland M. Stewart. 20:594-601, O '20.

The Project as a Teaching Method, by R. W. Sharpe. 20:20-6, Ja '20.

The Project in General Science, by William Sayles Wake. 19:643-50, O '19.

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The Psychological and Pedagogical Basis of General Science, by Daniel R. Hodgdon. 19: 305-22, Ap '19.

The Radio Program as an Aid in Education, by Louis A. Astell. 38:293-9, Mr '38.

The Relative Importance of the Modern Languages for the Student of Science, by Elbert H. Clarke. 29:849, N '29.

The Role of State Committees in Developing a Conservation Education Program, by Richard L. Weaver. 59:290-3, Ap '59.

The Role of the Junior College as it Relates to the Educational Needs of Industrial Technicians, by Tracy B. Nabers. 56:491-6, Je '56.

The Role of the Science or Mathematics Teacher in Meeting the Needs of the Veteran Who Returns to School, by Max D. Engelhart. 45:27-32, Ja '45.

The School Camp - A Part of the Total Conservation Program, by Marjorie Causey McDaniel. 58:293-6, Ap '58.

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The Science Janus, by William Gould Vinal. 53:345-57, My '53; and 53:450-7, Je '53.

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The Science Program in the Province of Manitoba, by William H. Lucow. 60:471-9, Je '60.

The Science Survey, by David J. Severn. 43: 856-9, De '43.

The Science Teacher and Radiological Science, by John W. Renner. 59:548-50, O '59.

The Science Teacher in the Total School Program, by Forrest Broome. 55:446-8, Je '55.

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The Sciences Need the Social Studies, by Philip G. Johnson. 40:708-15, N '40.

The Scientific Aspects of Our Language, by Henry Flury. 23:542-4, Je '23.

The Scientific Attitude and Skill in Thinking, by Elliot R. Downing. 34:302-3, Mr '34.

The Scientific Method as a Teaching Procedure, by Gordon M. A. Mork. 47:526-30, Je '47.

The Scientific Method in Use, by Harry C. Lassen. 50:529-32, O '50.

The Scientific Study of Science Instruction, by A. S. Barr. 33:63-72, Ja '33.

The Scientific Turn of the Mind, by Wilson C. Morris. 24:585-94, Je '24.

The Significance of Mathematics in the Physical Sciences, by Louis Brand. 38:607-13, Je '38.

The Skill-Centered General Science Course, by David E. Newton. 60:105-7, Fe '60.

The Subject Matter of Science, by Philip B. Sharpe. 40:558-60, Je '40.

The Systematic Development of Learning Units in General Science, by John C. Mayfield. 32:250-61, Mr '32.

The Teacher of Science and the Language Problems, by H. G. Paul. 31:652-64, Je '31.

The Teaching of General Science, by E. H. Sanguinet. 28:290-302, Mr '28.

The Teaching of General Science from the Teacher's Standpoint, by Francis D. Curtis. 51:255-63, Ap '51.

The Twelve-Year Science Sequence, by Philip B. Sharpe. 39:320-3, Ap '39.

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Survey of the Field Trip - Urban Geography of Milwaukee, by Villa B. Smith. 31:220-3, Fe '31.

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The Problem of the Slow Learner, by Leon N. Diamond. 48:551-70, O '48.

The Product of Our Botanical Teaching, by Otis W. Caldwell. 12:40-4, Ja '12.

The Relation of Biology to Human Welfare, by James E. Peabody. 14:375-86, My '14.

The Relation of Class to Laboratory Work in Biological Teaching, by Herbert F. Roberts. 14:467-72, Je '14.

The Relation of Ecology to High School Biology, by Morris M. Wells. 18:439-46, My '18.

The Relative Emphasis to be Given Physiology, Morphology, Ecology, and Other Phases of Botany and Zoology, by Elma Chandler. 6:393-9, My '06.

The Scope of High School Botany, by Arabel W. Clark. 10:312-6, Ap '10.

The Study of Botany, Thirty-Six Years with Asa Gray, by W. J. Beal. 1:296-8, N '01.

The Study of Forestry, by Barbara M. Dee. 28:731-9, O '28.

The Study of Plant Diseases in the High School, by Melville T. Cook. 16:351-3, Ap '16.

The Teaching of Biology in Secondary Schools, by J. F. Abbott. 8:191-8, Mr '08.

The Teaching of Sexual Hygiene: Matter and Methods, by Winfield S. Hall. 10:469-74, Je '10.

The Use of Projects in Teaching Natural History Subjects, by W. Whitney. 34:457-9, My '34.

The Use of the Definition in Teaching, by Adelphia M. Meyer. 38:327-9, My '38.

The Use of the Rotary System in Teaching Biology, by E. D. Collings. 41:23-7, Ja '41.

The Use of the Unit-Contract System in Teaching Biology, by Lynda Weber. 28:399-413, Ap '28.

The Use to be Made of the Orthoptera in Beginning Courses in Zoology - The Sequence of the Course, by F. B. Isely. 12:322-5, Ap '12.

This Is an Interesting World in Which We Live; Cultivating Attitudes in Biology, by Orra Olive Dunham. 30:1033-8, De '30.

To What Extent Should Biology Courses Be Adapted to the Pupil's Immediate Environment?, by Jean Dawson. 15:30-5, Ja '15.

Trends in the Teaching of High School Biology, by Robert A. Bullington. 56:100-8, Fe '56.

Vitalizing Biology Teaching in the Junior High School, by Hellen Aufderheide. 41: 205-10, Mr '41.

Ways to Stimulate Interest in Zoology, by Ada L. Weckel. 23:163-6, Fe '23.

What and How Much Can Be Done in Ecological and Physiological Zoology in Secondary Schools?, by Oscar Riddle. 6:212-6, Mr '06; and 6:247-54, Ap '06.

What Are the Practical Pedagogical and Scientific Bases for the Study of Biology in Secondary Schools?, by Nathan A. Harvey. 8: 548-50, O '08.

What Is Most Worth While in Zoology for Pupils in Secondary Schools?, by Jerome Isenbarger. 16:622-7, O '16.

What Shall Be the Content of Biology Courses in the High Schools of New York City?, by George C. Wood. 16:126-31, Fe '16.

What Should Be the Prerequisites for the Study of Biology?, by Nellie Cook. 30:365, Ap '30.

What's New in the Teaching of Biology, by Robert A. Bullington. 54:253-6, Ap '54.

What's the Use of Botany, by Willard N. Clute. 8:470-2, Je '08.

Where Shall the Course in Zoology Begin?, by Worrallo Whitney. 5:626-31, N '05.

Why Teach Biology?, by John E. Shoop. 41: 818-21, De '41.

Zoology in Secondary Schools, by Maurice A. Bigelow. 1:68-72, Ap '01; and 1:131-8, My '01.

Evaluation

A Questionnaire for the Criticism and Evaluation of a College Course, by Ralph W. Dexter. 44:640-5, O '44.

A Standardized Test in Biology, by J. L. Cooprider. 30:638-44, Je '30.

An Evaluation in Ninth Grade Biology by Howard J. Lester. 55:737-8, De '55.

An Objective Laboratory Test in Biology, by Bernal R. Weimer. 36:957-9, De '36.

Biology in the Secondary School, by Pressley L. Crummy. 36:854-8, N '36.

Checking and Grading Laboratory Drawings, by Horace Gunthorp. 31:846-8, O '31.

Classroom Tests in Biology, by P. W. Holaday. 34:187-92, Fe '34.

Improvement in Examination Technique for Teachers of Botany, by H. M. Jennison. 27: 832-43, N '27; and 27:944-51, De '27.

Information Exercises in Biology, by J. L. Cooprider. 25:807-13, N '25.

Norms for the Group Four Test, by Elliot R. Downing. 26:638-43, Je '26.

Norms of Scientific Ability and Achievement in the High School, by Elliot R. Downing. 26:717-21, O '26.

Test Construction in Less Standardized Subjects Illustrated by the Richards Biology Test, by Oscar W. Richards. 27:22-7, Ja '27.

Tests in Biology, by R. W. Tyler. 33:590-5, Je '33.

The Information Outline as a Part of the Newer Examination in Biology, by R. A. Studhalter. 30:920-2, N '30.

The Testing Movement in High School Biology, by Leon Nordau Diamond. 34:39-49, Ja '34.

Field Trips

Botanical Field Work in Secondary Schools, by H. S. Pepoon. 1:414-20, Ja '02.

Field Problems on Stream Fishes for Secondary Classes, by T. L. Hankinson. 9:234-40, Mr '09.

Field Study - The Backbone of Biology and Conservation Education, by Ralph W. Dexter. 43:509-16, Je '43.

Field Trips for Large Classes, by Fred R. Clark. 32:82-4, Ja '32.

Field Trips in Biological Courses, by William J. Tinkle. 33:947-50, De '33.

Field Trips in Botany, by Willard N. Clute. 7:398-400, My '07.

Field Trips - Notes on Managing, by Ellis C. Persing. 20:797-800, De '20.

Field Work on Birds for City Schools, by Lynds Jones. 9:131-3, Fe '09.

From Field and Study, by Aretas A. Saunders. 16:557, Je '16.

Making Biological Field Trips a Reality, by Brother Joseph Cain, C.S.C. 60:276-80, Ap '60.

On the Field Trip, by George D. Hubbard. 3: 395-7, Ja '04.

Out-Door Work by the Pupil on His Daily Trips to School, by D. R. Ellabarger. 7:53-6, Ja '07.

Pond, Stream or Lake, as a Stimulus to More Practical Work in Biology and Physiography, by R. W. Sharpe. 5:261-6, Ap '05.

Teachers Take to the Woods, by James Sanders. 54:414-5, My '54.

The Field Excursion in High School Biological Courses, by H. J. Van Cleave. 19:7-10, Ja '19.

The Field Tour Method of Teaching Biology, by R. Maurice Myers. 53:727-32, De '53.

The Value of Field and Herbarium Work, by William P. Holt. 4:121-8, Je '04.

Laboratory Activities

A School Greenhouse, by Ruth Allerdice. 30: 502-4, My '30.

An Analysis of Biological Drawings, by Amer M. Ballew. 30:490-7, My '30.

An Appreciation of the Pedagogical Possibilities of the Biological Laboratory, by T. W. Galloway. 8:116-25, Fe '08.

An Outdoor Laboratory, by Willard N. Clute. 11:402-5, My '11.

Applications of Atomic Energy to the Biological Sciences, by Norbert J. Scully. 50:175-9, Mr '50.

Bring 'Em Back to Life, by Wes Minear. 35: 361-7, Ap '35.

Drawing and Its Function in the General Botany Course, by A. M. Johnson. 33:854-60, N '33.

Labelling Paraffin Blocks,by Fred L. Holtz. 6:118, Fe '06.

Laboratory Notebooks in Biology, by Worrallo Whitney. 7:745-7, De '07.

Lecture - Demonstration - Recitation Technique in Biology Teaching, by Jerome Isenbarger. 25:618-22, Je '25.

Life for the Study of Life, by Sister M. Stanislaus Costello. 45:554-6, Je '45.

Methods of Teaching Biology, by Hazel A. McDowell. 32:261-7, Mr '32.

New Materials and Equipment for Biology Teaching, by Joseph W. Rhodes. 40:443-8, My '40.

Paraffined Wire Pots for Soil Cultures,by B. E. Livingston. 6:475, Je '06.

Respiration in Plants, by William L. Schaaf. 15:832-3, De '15.

Shall the Preparation of a Herbarium and the Identification of Species Form a Part of the Required Work in Botany in Our Secondary Schools?, by Gilbert H. Trafton. 2:89-94, Ap '02; and 2:148-52, My '02.

Some Laboratory Practices in Biology in Secondary Schools, by Mary Elizabeth Pape. 26: 274-7, Mr '26.

Suggestions Concerning High School Botany, by Willard N. Clute. 8:178-82, Mr '08.

Teaching Power in the Sound Film, by Joseph E. Dickman. 46:228-30, Mr '46.

Teaching the Scientific Method, Article VIII: Teaching the Scientific Method in the Biology Laboratory, by Thomas F. Morrison. 35: 38-40, Ja '35.

The Gammarus as a Supplementary Type, by Edgar A. Bedford. 1:482-3, Fe '02.

The Preservation of Earthwords, by Amos W. Peters. 6:770-1, De '06.

The Selection and Organization of the Material and Activities for a Definite Unit of Work in General Biology, by John M. Presson. 24:841-4, N '24.

The Value of a Greenhouse to High School Botany, by A. F. Ewen. 16:131-3, Fe '16.

Research Reports

A Chronological Survey of Published Research Studies Relating to Biological Materials in Newspapers and Magazines, by W. Edgar Martin. 45:543-50, Je '45.

A Comparative Performance of High School and University Freshmen on a Test of Biological Misconceptions, by Melvin W. Barnes and Gilbert W. Mouser. 43:447-50, My '43.

A Comparative Study of the Effectiveness of Models, Charts and Teacher's Drawings in the Teaching of Plant Structures, by Dorothy E. Huebner. 29:65-70, Ja '29.

A Comparison of a "One-Hour Two Semester" and a "Two-Hour One Semester" Course in Biology, by Paul E. Kambly. 39:279-81, Mr '39.

A Critical Evaluation of Review, by Carleton A. Moose. 34:528-31, My '34.

A Popular Estimate of the Importance of Biology, by W. L. Eikenberry. 16:152-5, Fe '16.

A Study of the Effect of a Course in High School Biology on Performance in College Biology, by Bert Cunningham. 34:578-88, Je '34.

A Year in Biology III, by Harry A. Cunningham. 26:267-71, Mr '26; and IV, 26:710-6, O '26.

An Analysis of Current Examinations in High School Biology, by Stephen G. Rich. 23:254-7, Mr '23.

An Experiment in the Use of Three Different Methods of Teaching in the Class Room, by George W. Hunter. 21:875-90, De '21; and 22:20-32, Ja '22.

An Experiment on Methods of Teaching Zoology, by J. P. Gilbert. 11:205-15, Mr '11.

An Experimental Class in High School Biology, by Winifred Perry. 23:555-60, Je '23.

An Investigation of the Teaching of Biological Subjects in Secondary Schools, by Otis W. Caldwell. 9:581-97, Je '09.

Biological Definitions in Elementary College Courses, by George E. Nelson. 28:706-9, O '28.

Biology from the Pupil's Standpoint, by George C. Wood. 13:804-14, De '13.

Biology Teaching in Indiana High Schools, by C. E. Montgomery. 16:220-32, Mr '16.

Botany in High School and College, by J. E. Kirkwood. 27:913-8, De '27.

Changing Unfounded Beliefs - A Unit in Biology, by Otis W. Caldwell and Gerhard E. Lundeen. 33:394-413, Ap '33.

Do We Train or Do We Merely Select?, by Harold Sellers Colton. 24:748-51, O '24.

Experimental Practices in Biology Teaching, by J. Wayne Wrightstone. 34:491-5, My '34.

Findings in the Teaching of Biology, by Nathan S. Washton. 41:553-8, Je '41.

High School Biology and Mental Hygiene, by Charles W. Mohler. 50:713-24, De '50.

High School Biology Content as Judged by Thirty College Biologists, by Otis W. Caldwell and Florence Weller. 32:411-24, Ap '32.

How to Make High School Zoology More Attractive to the Student, by Amer M. Ballew. 26:941-4, De '26.

Illustrative Material in Biology Texts, by Richard W. Neal. 40:267-9, Mr '40.

Improving Reading in Biology, by Kermit J. Blank. 32:889-92, N '32.

Information Versus Training: An Experiment in Laboratory Methods, by Harold Sellers Colton. 25:256-8, Mr '25.

Laboratory Methods in High School Science, by J. L. Cooprider. 23:526-30, Je '23.

Methodology in Biology, by Valeda G. Norris and George W. Hunter. 28:987-94, De '28.

Mistaken Notions of Scientific Phenomena as They Now Exist Among Average Citizens, by Clarence Bonnell. 25:737-9, O '25.

Oral Versus Written Instruction and Demonstration Versus Individual Work in High School Science, by J. L. Cooprider. 22:838-44, De '22.

Pedagogical Experiments from the Biological Laboratory of the DeWitt Clinton High School, by Geo. W. Hunter. 18:728-32, N '18.

Pupil Opinion of Biology After Two Months Attendance, by Mary Elizabeth Pape. 26:371-3, Ap '26.

Report of the Committee on a One-Year Fundamental Course of Biological Science, by G. W. Hunter. 23:656-64, O '23.

Report of the Committee on the Experimental Investigation of the Teaching of Biology, by W. L. Eikenberry. 11:28-31, Ja '11.

Report on Biology, by Ellis C. Persing. 25:463-7, My '25.

Research in the Pedagogy of Biology, by W. L. Eikenberry. 11:106-7, Fe '11.

Science in the High Schools, An Investigation, by Worrallo Whitney. 13:183-96, Mr '13.

Shall the Drawing be Inked?, by J. L. Cooprider. 25:62-73, Ja '25.

Some Comparisons of Biological Science Teaching in the Secondary Schools of Illinois and the United States as a Whole, by George W. Hunter. 25:844-53, N '25.

Some Comparisons of Courses in Biology and Physical Geography in the High Schools of Forty-Two Cities, by Lucie Harmon and Alice Graper. 14:807-8, De '14.

Some Data Regarding the Teaching of Zoology in Secondary Schools, by Elliot R. Downing. 15:36-43, Ja '15.

Some Factors Influencing Final Marks in an Introductory Course in College Biology, by C. E. Rosenquist. 44:560-4, Je '44.

Status of Biology in the Secondary Schools of Oregon, by Vesta Holt. 27:121-8, Fe '27.

Studies in the Teaching of Biology: Superior Substitutes for Certain Classic Living Materials, by Paul F. Brandwein. 42:243-50, Mr '42.

Subject Matter Topics in Biology Courses of Study, by Norman E. Webb and W. G. Vinal. 34:829-41, N '34.

Teacher Versus Student Demonstrations in High School Biology, by J. L. Cooprider. 26:147-55, Fe '26.

Teaching Values of the Prepared Biology Drawing Versus the Original Laboratory Drawing, by I. V. Tobler. 45:479-82, My '45.

The Biological Sciences in Minnesota High Schools, by A. M. Holmquist. 22:166-74, Fe '22.

The Field Trip in Biology, by Fred M. Schellhammer. 35:170-3, Fe '35.

The Influence of High School Biological Courses Upon Grades of University Freshmen in Zoology, by H. J. Van Cleave. 18:483-91, Je '18.

The Methods, Content and Purpose of Biologic Science in the Secondary Schools of the United States, by G. W. Hunter. 10:1-10, Ja '10; and 10:103-11, Fe '10.

The Possible Use of Vacant City Lots in the Teaching of High School Biology, by Adelphia M. Meyer. 29:658-60, Je '29.

The Practical Value of Certain Topics in a Course in Biology, by John W. Schneck. 46: 318-22, Ap '46.

The Preparation of Teachers for High School Biology, by Jesse M. Shaver. 24:174-84, Fe '24.

The Present Content of Biology in the Secondary Schools, by Oscar W. Richards. 23: 409-14, My '23.

The Present Status of Zoological Teaching in Michigan High Schools, by Harold Cummins. 16:805-13, De '16; and 17:18-24, Ja '17.

The Problem of Method in Elementary Biology, by G. W. Hunter. 27:594-605, Je '27.

The Project Method in Biology, by Charles G. Smith. 35:83-6, Ja '35.

The Status of General Biology in High Schools of the North Central States, by W. C. Reusser. 23:258-61, Mr '23.

The Status of the Biological Sciences in the Accredited High Schools of the State of Washington, by Frank K. Foster. 24:407-23, Ap '24.

The Teaching of Biology, by Vaughan MacCaughey. 17:696-701, N '17.

The Teaching of General Botany in Liberal Arts Colleges for Women, by Sister Mary Therese, B.V.M. 37:1037-41, De '37.

The Textbook Versus Supplemental Material in Teaching Biology, by Wayne A. Stafford. 52: 737-42, De '52.

Two Experiments in Zoology Teaching, by Frederic C. Lucas. 11:107-8, Fe '11.

Teachers

A Course in Methods of Teaching Zoology, by George Hendrickson. 33:672-3, Je '33.

A Self-Improvement Sheet in Biology Teaching in the Secondary Schools, by Ernestine W. Roberts. 39:443-9, My '39.

A Tentative Curriculum for a Teacher-Training Course in High School Biology, by Frederick K. Blodgett. 26:482-94, My '26.

Biology Department Meetings to Coordinate Instruction and Improve the Quality of Teaching, by A. H. Bryan. 34:609-12, Je '34.

Discussion of Professor Coulter's Paper in February Number, by L. Murbach. 5:356-8, My '05.

Factors That Make for Success in the Teaching of Biology in Our High Schools, by H. H. Whetzel. 8:701-3, N '08.

Preparation of the Teacher of Biology, by Otis W. Caldwell. 16:385-92, My '16.

Research and Graduate Work for Teachers of Biology in High Schools, by Esther F. Byrnes. 6:489-93, Je '06.

Should Biology Be Included in the Training of Every Teacher? If So, What Should be the Nature of the Course?, by Oren E. Frazee. 26:816-23, N '26.

The Influence of the Teacher's Research Work Upon His Teaching of Biology in Secondary Schools, by John M. Coulter. 5:94-104, Fe '05.

Teaching Techniques

A Biology Classroom "Zoo," by Sterling O. Wilson. 43:345-51, Ap '43.

A Botanical Garden. Ecological Groups, by Edwin D. Hull. 37:549-59, My '37.

A Card Game Designed as an Aid in Teaching the Characteristics of Gilled Mushrooms, by C. L. Porter. 44:260-2, Mr '44.

A Census of Summer Gardens in New York City, by Marvin M. Brooks and Fred M. Schellhammer. 38:1020-4, De '38.

A Clearer Understanding of the Fruitseed Relationship Through the Use of the Fruits of Wild Indigo, by P. A. Davies. 34:931-2, De '34.

A Convenient Method to Remove Formalin from Preserved Biological Specimens, by W. B. Fort and H. C. Wilson. 41:568-70, Je '41.

A Demonstration Model for Genetics, by Thomas F. Morrison. 35:571-5, Je '35.

A Demonstration of the Coefficient of Correlation, for Elementary Students of Plant Breeding, by Herbert F. Roberts. 19:619-28, O '19.

A Device for Demonstrating Transpiration, by D. C. Barrus. 32:134, Fe '32.

A Device Showing the Mechanism of Respiration, by G. C. Bush. 5:186, Mr '05.

A Diagram of the Inter-relation Between the Organic and Inorganic Worlds, by Gerard Krythe. 22:63-4, Ja '22.

A Few Hints for Giving Variety to Assignments and Recitations in Biology, by J. Edna Johnson. 28:272-4, Mr '28.

A Folding Collection Pole, by Louis Murbach. 4:96-7, My '04.

A Formula for Determining Hybrid Ratios, by Naomi Minner. 49:537-8, O '49.

A Glass-Tube Method of Observing the Home Life of Solitary Bees and Wasps, by Carl G. Hartman. 43:709-11, N '43.

A Laboratory Project in High School Biology, by Francis D. Curtis. 23:771-3, N '23.

A Mathematician Looks at Anatomy, by Asa Wilmott. 50:32-6, Ja '50.

A Method for Collecting Amoebae, by S. O. Mast. 2:407, Ja '03.

A Method for Photographing Birds, by Gerald M. Steelman. 39:269-70, Mr '39.

A Method for the Preparation of Earthworms and Smaller Oligochaetes for Study, by Paul S. Welch. 13:15-8, Ja '13.

A Method of Teaching Bacteriology in a Biology Course, by Helen Kerr Maxham. 21:723-7, N '21.

A Neglected Feature in Fern Study, by J. A. Foberg. 1:26-8, Mr '01.

A New and Cheap Form of Auxanometer, by F. E. Lloyd. 3:345-8, De '03.

A New Type Standard Size Cage for Rats and Other Small Animals, by Joseph A. Kohout. 54:521-3, O '54.

A Night in 1838, by Ruth McDonell. 38:753-6, O '38.

A Note on Frogs, by D. G. Vequist. 32:88, Ja '32.

A Plan for a Co-operative Study of Bird Migration, by Frank Smith. 6:224-5, Mr '06.

A Project for Beginning College Biology, by Fred R. Clark and Ethel Longino. 32:363, Ap '32.

A Resume of Some of the Outstanding Educational Picturols on Birds, by Lyle F. Stewart. 40:536-40, Je '40.

A Simple Apparatus for Photosynthesis, by H. A. Webb. 16:844-5, De '16.

A Simple Auxanometer, by L. Murbach. 2:346-9, De '02.

A Simple Demonstration Showing the Fuel Content of Food, by Elmer G. Thumm. 38:19, Ja '38.

A Simple Hypsometer, by E.N. Trauseau. 7:114-7, Fe '07.

A Simple Micro-Pipette, by Thomas F. Morrison. 34:498-9, My '34.

A Simple Micro-Projector, by John R. Harris. 34:532-3, My '34.

A Simple Plant Experiment, by E. S. Gould. 9:39-40, Ja '09.

A Simple Population Formula of Use in Teaching Genetics, by Samuel W. Howe and David J. Severn. 43:51-2, Ja '43.

A Solution to the Microscope Problem, by V. A. Reihmer and C. G. Erickson. 40:164, Fe '40.

A Spirometer and Its Use, by Grace F. Ellis. 1:372-4, De '01.

A Standardization of Floral Diagrams for Educational Use, by Helen A. Choate. 14:135-42, Fe '14.

A Student-Made Micro-Projector, by Kenneth E. Anderson and Terry Lode. 46:701-2, N '46.

A Successful Apparatus for Demonstrating Osmosis, by S. G. Rich. 22:857-8, De '22.

A System for Checking Up Individual Projects in Biology, by Nell J. Sanders. 19:329-32, Ap '19.

A Teaching Demonstration of the Monohybrid Cross, by Paul F. Brandwein. 37:1103-5, De '37.

A Unit In Ninth Grade Biology, by Louise Herrick. 31:70-4, Ja '31.

A Vitamin Demonstration Relative to Absorption, by Lee R. Yothers. 45:690-2, N '45.

Advantages of Migration Records in Connection with Bird Study in Schools, by Frank Smith. 7:221-4, Mr '07.

An Adaptation of the B & L Microprojector, by Howard H. Hillemann. 50:101-3, Fe '50.

An Artificial Ant Nest as a Project in the Teaching of Biology, by D. F. Miller. 29: 256-9, Mr '29.

An Experiment Illustrating the Change in the Ratio of Oxygen to Carbon Dioxide During the Expiration of Air from the Lungs, by Herbert J. Arnold. 30:651-3, Je '30.

An Experiment in Biology by a High School Pupil of Columbus, Ohio, by Hazel Linn. 21: 558-9, Je '21.

An Experiment in Photosynthesis, by John L. Dahl. 17:17, Ja '17.

An Experiment in School and State Cooperation, by Helen A. Loomis. 16:828-30, De '16.

An Experiment to Demonstrate that the Pulse is Caused by a Wave of Pressure and Is Not Due to the Onward Flow of the Blood, by S. D. Magers. 5:462-5, Je '05.

An Experimental Illustration of Osmotic Pressure, by C. F. Adams. 2:522-3, Mr '03.

An Experimental Microcosm, by Edgar N. Transeau. 11:263-4, Mr '11.

An Identification Aid When Dissecting Frogs, by Lee R. Yothers. 47:421-3, My '47.

An Osmosis Demonstration Apparatus, by S. M. Troxel. 37:684-6, Je '37.

An Unbalanced Aquarium for the Teaching of Biological Principles, by D. F. Miller. 31: 75-7, Ja '31.

Animal Collections as an Aid in the Teaching of Biology, by Fred R. Clark. 30:945-7, N '30.

Ant Study in the Biology Classroom, by A. S. Windsor. 38:60-6, Ja '38.

Apparatus for Measurement of the Growth of a Plant, by George W. Low. 5:27-8, Ja '05.

Apple Day, As Observed by a High School Botany Class, by Denman Cruttenden. 14: 217-20, Mr '14.

Bacteria, by Mary Wilde. 18:608-10, O '18.

Bacteriophage in the Classroom, by Paul Kahn. 60:127-30, Fe '60.

Balanced Sea-Water Aquaria, by L. B. Spencer. 10:12-4, Ja '10.

Beauty in Bottles, by Helen Field Watson. 32:91-4, Ja '32.

Biology Collection, by J. S. Jackson. 31: 606-7, My '31.

Biology Greenhouse Techniques, An Aid to Your National Defense Program, by M. C. Lichtenwalter. 42:160-6, Fe '42.

Biology Projects, by Myrtle Creaser. 30: 955-6, N '30.

Bird Studies, by Lynds Jones. 8:65, Ja '08.

Bird Study in High School Biology, by Jerome Isenbarger. 25:685-7, O '25.

Blood Typing and Blood Inheritance Using Students and Parents as Subjects for Demonstration, by Eugene W. Gross and Estelle Laba. 47:715-24, N '47.

Botany Laboratory Equipment, by Willard N. Clute. 18:492-4, Je '18.

Brooklyn Botanic Garden's Cooperation with Public Schools, by C. Stuart Gager. 40: 614-8, O '40.

Can We Interest the Parents?, by E. L. Morris. 1:410-3, Ja '02.

Chapters in the History of American Botany, by John M. Coulter. 11:814-6, De '11.

Charts Illustrating the Effects of Common Defects of the Eye, by W. M. Winton. 13: 153-4, Fe '13.

Chief Bughunter, by Clarence Holtzman. 30: 681-3, Je '30.

Cockroaches, by D. G. Vequist. 34:595, Je '34.

Conservation in Wild Flower Studies, by Mildred F. Campbell. 53:27-8, Ja '53.

Conservation in Winter, by Henry Baldwin Ward. 33:139-42, Fe '33.

Containers for Insects and Birds to be Used for Class Work, by Hattie J. Wakeman. 18: 841-2, De '18.

Cut Out Life Cycles, by J. Alfred Chiscon. 55:741-2, De '55.

Demonstrating the Stomata in Leaves, by Willard N. Clute. 8:50, Ja '08.

Demonstration of Stomata in Leaves, by Ernest F. Unwin. 7:686-7, N '07.

Demonstration Study of Colors in Autumn Foliage, by Helen A. Choate. 24:191-2, Fe '24.

Demonstrations Dealing with Photosynthesis, by P. F. Brandwein. 39:160-1, Fe '39.

Developments in Antibiotics Suitable for Pre-College Levels, by Robertson Pratt. 52: 213-23, Mr '52.

Devices for Projection with the Microscope, by E. R. Downing. 3:513-4, Mr '04.

Diet Experimentation as a Student Project in the High School Biology Department, by R. Will Burnett. 38:242-9, Mr '38.

Diffusion, Osmotic Pressure, and Imbibition in High School Biology, by Aleita Hopping. 19:421-30, My '19; and 19:501-8, Je '19.

Elementary Bacteriological Studies, by Wilbur H. Wright. 7:499-501, Je '07.

Equipment of the Biology Laboratory in a Small High School, by E. V. Kennedy. 28: 414-7, Ap '28.

"Evolution" in the High School, by Oran L. Raber. 14:323-6, Ap '14.

Experiences in the Study of Aquatic Life, by Eugene W. Surber. 54:352-60, My '54.

Experimental Biology of Sex, by John W. MacArthur. 14:678-81, N '14.

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Experimental Work in Botany in the Home, by W. Whitney. 31:122-3, Fe '31.

Extending the Range of Usefulness of the Triple-Purpose Micro-Projector, by H. O. Burdick. 36:505-9, My '36.

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Gelatine Capsules for "Osmosis" Experiments, by Jean Broadhurst. 32:160-2, Fe '32.

Germinating Seeds and Demonstrating Root Hairs for Class Use, by H. F. Thut. 31: 1103-4, De '31.

Give the Oyster Its Place, by Robert S. Bailey. 47:653-5, O '47.

Helps for Biology Teachers, by W. C. Croxton. 25:597-9, Je '25.

Heredity for High School, by Robert C. McCafferty. 52:385-403, My '52.

Hints for Collecting Botanical and Zoological Material, by John L. Dahl. 18:52-3, Ja '18.

How School Gardens Tend to Direct a Natural Course in Botany, by Genevieve Monsch. 18: 36-42, Ja '18; and 18:124-9, Fe '18.

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How to Tell Good Yeast - It Should be Free From Dryness, Gas and Offensive Odor, by Leonard K. Hieshberg. 20:820, De '20.

Hydroponics and Auxins, by John Edwin Coe. 41:629-37, O '41.

Illustrations of Cell Structures. 29:266, Mr '29.

Illustrative Material for Biology Courses in High Schools. 15:334-8, Ap '15.

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Laboratory Material for General Biology, by A. J. Grout. 2:220-3, O '02.

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Memoirs of an Aquarium, by Marjorie L. Bettys. 30:952-3, N '30.

Mendel's Laws, by Thomas Curtin and O. E. Underhill. 36:471-3, My '36.

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Mineral Nutrition in Plants - Some Suggestions on Teaching the Subject to High School Students of Biology, by Aleita Hopping. 19: 302-4, Ap '19.

Model-Making by Zoology Students, by Frederick Colby Lucas. 7:224-8, Mr '07.

Model Making for Biology, by Elizabeth Gray. 43:828-36, De '43.

Modeling Wax in Physiology and Zoology, by Ernest C. Witham. 7:565-8, O '07.

More Nature Trails, by Franklin R. Meyers. 34:733-7, O '34.

Moss Materials for Teaching, by Winona H. Welch. 47:503-6, Je '47.

Mushrooms - To Eat or Not to Eat, by J. Arthur Herrick. 48:679-85, De '48.

New Life Amid Bursting Shells, by Sister Rosemary McManus. 42:821-2, De '42.

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Notes on the Study of Seeds, by Gilbert H. Trafton. 2:237, O '02.

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Observations of Air and Dust Bacteria as a Science Project, by Arthur H. Bryan. 35: 813, N '35.

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Paper Negatives - A Simple, Inexpensive Technique for Obtaining Microphotographs, by Robert C. Goss and Larry H. Ogren. 60:639-45, N '60.

Petri Dish Projects in Biology, by G. B. Claycomb. 18:331-4, Ap '18.

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Plans for a Biological Laboratory, by S. O. Mast. 2:166-7, My '02.

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Plot Studies in High School Biology, by H. Seymour Fowler. 51:649-56, N '51.

Portable Display Cases for Birds and Specimens, by William M. Gregory. 40:208-10, Mr '40.

Practical Pupil Work with Yeasts and Bacteria, by Henry R. Hubbard. 17:795-801, De '17.

Preparation of Mammalian Skeletons, by Bertram G. Smith. 7:44-53, Ja '07.

Preparation of Microscopic Material for a Course in General Zoology, by Tracy I. Storer. 14:588-96, O '14.

Problem Solving - Applied to Field Work in Biology, by Walter P. Porter. 26:278-82, Mr '26.

Projects, by Ruth Williston. 24:16-9, Ja '24.

Projects in Biology, by Grace F. Ellis. 18: 607-8, O '18.

Propagating Plants in the Classroom, by Hans Nelson. 57:293-5, Ap '57.

Radioisotopes in Biology, by Eugene E. Fowler and Nathan H. Woodruff. 50:353-70, My '50.

Rapid Survey of Eating Habits - A Stimulus to Nutrition Education, by M. J. Babcock and Lorraine Owen Gates. 54:601-11, N '54.

Realistic Models of Plastic for Biology, by R. Dean Schick. 51:523-6, O '51.

Recent Applications of Physics and Chemistry in Biology, by Francis O. Schmitt. 39: 3-14, Ja '39.

Reproductive Biology, by Clifford E. Lloyd. 46:528-30, Je '46.

Root Hairs for Class Use, by William G. Kirby. 31:325-6, Mr '31.

Root Hairs via the Test Tube, by Joseph W. Rhodes. 42:215-7, Mr '42.

Salt Water Aquaria for the School Laboratory, by Myrtle E. Johnson. 20:779-81, De '20.

School Band Wind Instrument Mouthpieces May Harbor Countless Disease Germs, by Arthur H. Bryan. 59:9-15, Ja '59.

School Forests, Outdoor Laboratories for Schools, by Carl S. Johnson. 52:275-81, Ap '52.

School Sponsored Gardens as a Project in Creative Science, by Cora D. Mitchell. 42: 441-9, My '42.

Simple Staining Procedures that Arouse Interest in Bacteria, by Russell W. Cumley. 35: 18-23, Ja '35.

Skull-Diggery, by Alfred J. Chiscon. 53: 487-90, Je '53.

Some Experimental Data on the Reliability of Tegosept M. and Moldex as Mold Preventatives in Culture Media, by John P. Wessel. 39: 862-6, De '39.

Some Fundamentals of Biology Teaching, by E. Laurence Palmer. 47:15-24, Ja '47.

Some Good Plant Demonstrations that Are Not Included in the Usual Text-Books, by F. L. Pickett. 10:317, Ap '10.

Some Laboratory Aids in Zoology, by John P. Wessel. 38:614-8, Je '38.

Some Lessons About Bees, by T. P. Webster. 31:417-30, Ap '31; 31:560-5, My '31; 31: 720-7, Je '31; and 31:841-6, O '31.

Some Methods in Germination Experiments, by Franklin R. Myers. 33:326-8, Mr '33.

Some Recent Advances in Plant Pathology, by L. R. Jones. 17:95-100, Fe '17.

Some Suggestions in the Teaching of Inheritance in Secondary Schools, by Lloyd W. Law. 36:490-5, My '36; and 36:604-7, Je '36.

Some Ways of Depriving Germinating Seeds of Air, by Louis Murbach. 1:25-6, Mr '01.

Spider Study in a Zoology Course, by Wilbur H. Wright. 7:215-9, Mr '07.

Spirit of the Classroom, by W. Whitney. 31:386-7, Ap '31.

Student Equipment in Biology Classes, by Howard C. Abbott. 30:1011-3, De '30.

Studying Buds. 10:111-3, Fe '10.

Supplements to General Biology, by Sister Mary Ellen O'Hanlon. 32:53-6, Ja '32.

Teaching First Aid and Artificial Respiration in Biology Classes, by R. C. Wilkins. 38:515-7, My '38.

Teaching High School Pupils the Insects, by Jerome Isenbarger. 18:195-202, Mr '18.

Teaching the Carrot Root Correctly, by Joseph P. McMenamin. 48:47-8, Ja '48.

Temperature Changes in Ponds, by Walter A. Thurber. 41:724-7, N '41.

Termites in the Classroom, by James Edgar Hyer. 56:70-2, Ja '56.

Terraria and Their Plants, by Edwin D. Hull. 34:372-9, Ap '34.

The Age of Mammals and Man - A New Unit in High School Biology, by W. W. McSpadden and Mildred Pickle Mayhall. 30:301-7, Mr '30.

The Amaryllis, by Genevieve Monsch. 17: 294-7, Ap '17.

The Application of Statistics to Evolution Studies, by Chas. B. Davenport. 1:339-45, De '01.

The Botanical Museum, by Edwin D. Hull. 35: 825-43, N '35; 36:192-201, Fe '36; and 36: 416-22, Ap '36.

The Burbot as a Source of Live Material for Parasite Study, by W. M. Tidd. 32:182-3, Fe '32.

The Camera as an Aid in Zoological Instruction, by Alvin Davison. 3:398-404, Ja '04.

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The Cross-Word Puzzle in Botany, by Oran Raber. 26:284-96, Mr '26.

The Educational Uses of Sharks and Rays, Especially the Acanth (Squalus acanthias or "horned dog-fish"), by Burt G. Wilder. 8: 704, N '08.

The Exhibit as a Supplementary Method, by Harold J. Abrahams. 58:1-9, Ja '58.

The Fern - A Science Fantasy, by Elizabeth Stoughton Rawls. 45:595-7, O '45.

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The School Garden, by Ellen T. Sullivan. 15:614-6, O '15.

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The Woodsy Mnium in Teaching Mosses, by Winona H. Welch. 47:640, O '47.

Thinking Versus Doing in Biology, by Maitland P. Simmons. 48:285-9, Ap '48; and 49:578-81, O '49.

Transparent Tubes for Exhibiting Skins, by Roland Case Ross. 26:408-11, Ap '26.

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Trees and Forest Conservation, by Lyle F. Stewart. 37:667-74, Je '37.

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Ways to Vary Class Routine in Zoology, by Winnafred Shepard. 24:255-6, Mr '24.

What is an Infectious Disease?, by W. H. Manwaring. 1:469-71, Fe '02.

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Forests and Lumbering References, by W. M. Gregory. 18:44-5, Ja '18.

High School Courses in Botany, by Willard N. Clute. 11:109-12, Fe '11.

More Double Talk, by Aaron Goff. 51:695-7, De '51.

Publications of the Forest Service, Classified for Teachers and Students, by Findley Burns. 18:716-22, N '18.

Science Courses in Secondary Schools, by the Committee on Biology. 27:299-307, Mr '27.

Slidefilms for Teaching Natural Science, by Lyne S. Metcalfe. 48:722-3, De '48.

Some Contributions of Technical Research to Elementary Biology, by Ralph C. Benedict. 31:146-51, Fe '31.

Textbooks of Elementary Schools, by W. Whitney. 31:265, Mr '31.

The Erroneous Physiology of the Elementary Botanical Text-Books, by W. F. Ganong. 6: 297-302, Ap '06.

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CHEMISTRY

Career Information

Commercial and Industrial Demands on the Chemistry of Tomorrow, by B. J. Rivett. 17: 810-4, De '17.

Pick the Right Job, by George E. F. Brewer. 55:711-9, De '55.

Clubs

A Chemistry Club Banquet, by John J. Condon. 31:989-91, N '31.

Experimental Lectures, by Harry D. Abells. 5:436-9, Je '05.

Curriculum

A Chemical Museum for High Schools, by Oscar R. Foster. 19:612-4, O '19.

A Common Sense Basis of Chemistry Teaching in Secondary Schools, by G. T. Franklin. 32: 857-62, N '32; 32:954-60, De '32; and 33:81-5, Ja '33.

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A High School Course in Trade Chemistry, by Edwin G. Pierce. 20:27-33, Ja '20.

A Modern Course in Chemical Qualitative Analysis, by Charles H. Heimler. 60:632-4, N '60.

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Another Point of View in Chemistry, by Fredus N. Peters. 7:502-7, Je '07.

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Are College Graduates in Chemistry Fitted to Take Up Research Problems? If Not, Why Not?, by H. D. Gibbs. 21:800, N '21.

Baking and Chemistry Teaching, by Victor E. Marx. 34:284-90, Mr '34.

Changes, Physical and Chemical, by Creig S. Hoyt. 18:593-5, O '18.

Changing Trends in Teaching Chemistry, by Wilhelm Segerblom. 34:524-5, My '34.

Chemical Theory in the High School Course, by Roy Fryer. 6:688-91, N '06; and 6:730-5, De '06.

Chemical Warfare Service and Chemical Teaching, by William McPherson. 20:200-9, Mr '20.

Chemistry, by Frank E. Brown. 59:228-34, Mr '59.

Chemistry Adapted to Social Needs, by C. M. Wirick. 21:142-3, Fe '21.

Chemistry and Culture, by Lewis B. Avery. 9:739-42, N '09.

Chemistry and Efficiency, by P. M. Glasoe. 17:127-9, Fe '17.

Chemistry and the Student, by Adeline H. Jacobs. 23:51-3, Ja '23.

Chemistry as a Related Subject, by Pauline G. Beery. 23:511-9, Je '23.

Chemistry as an Eliminator of Waste in the High School, by Joseph C. Blucher. 17:702-7, N '17.

Chemistry for High School Girls, by G. Ross Robertson. 13:133-8, Fe '13.

Chemistry for the Consumer, by William C. Curtis. 41:322-34, Ap '41; and 42:781-91, N '42.

Chemistry in Education, by C. L. Speyers. 2:70-5, Ap '02; and 2:133-9, My '02.

Chemistry in General Education, by R. J. Holder. 41:375-7, Ap '41.

Chemistry in German, by Jessie Coplin. 13: 667, N '13.

Chemistry in the Secondary Schools of America, A Historical Treatment, by Gerald Osborn. 60:621-5, N '60.

Chemists and the World at War, by Brother I. Leo. 43:742-7, N '43.

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College Chemistry for the General Student, by E. A. Strong. 15:127-32, Fe '15.

Comment on "Another Point of View," by Alexander Smith. 7:508-10, Je '07.

Correlation of High School and College Chemistry from the High School Point of View, by H. L. Geesling. 12:476-85, Je '12.

Creating Interest in Chemistry, by Ray E. Hoffman. 23:30-3, Ja '23.

Decrease in the Number of Pupils of Chemistry in High Schools, Its Cause and Remedy, by James E. Armstrong. 5:107-9, Fe '05.

Difficult High School Chemistry, by B. Clifford Hendricks. 47:25-9, Ja '47.

Does Your Chemistry Course Show Signs of Life?, by Mennow M. Gunkle. 55:436-8, Je '55.

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Fact and Theory in Elementary Chemistry, by Ira D. Garard. 15:26-9, Ja '15.

Forced Into Business, by David D. Aptekar. 41:46-9, Ja '41.

Fundamentals in Method - Old and New, by Charles J. Pieper. 20:409-15, My '20.

High School Industrial Chemistry, by E. G. Pierce. 34:246-50, Mr '34.

How About Inductive Chemistry?, by Sister Ernestine Marie. 59:16-8, Ja '59.

How Does the Present High School Course in Chemistry Meet the Demands of Vocational Chemistry?, by Frank B. Wade. 20:313-6, Ap '20.

How Help the Beginner to Study Chemistry, by Francis C. Coulson. 30:1014-8, De '30.

How May Instruction in Elementary Chemistry be Made More Efficient?, by E. B. Hutchins, Jr. 9:252-60, Mr '09.

How Much Chemical Theory Shall be Taught in the High School and How Shall It be Presented?, by Milo S. Baker. 6:273-83, Ap '06.

How to Get a Closer Relation Between the Chemistry of the High School and the College from the Standpoint of the College, by J. H. Reedy. 23:246-53, Mr '23.

How to Get a Closer Relationship Between the Chemistry of the High School and College, by E. H. Westlund. 26:44-9, Ja '26.

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New Developments in Chemistry of Interest to High School Teachers, by William J. Argersinger, Jr. 50:107-11, Fe '50.

Objectives as Aids in the Choice of Subject Matter in High School Chemistry, by Earl W. Phelan and Catherine S. Rose. 29:831-5, N '29.

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Reply by the Editor for Chemistry to a Letter Asking What "Practical" Chemistry is Taught in His Course, by Frank B. Wade. 17: 591-3, O '17.

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Semi-Micro Chemistry - Are You Converting?, by Marc A. Shampo. 58:723-6, De '58.

Semimicro Chemistry for Beginning Students, by Sister M. Ignatia. 42:484-8, My '42.

Signposts Toward the Revision of High School Chemistry, by Paul Brandwein. 53:313-5, Ap '53.

Social Values of High School Chemistry, by Theodore D. Kelsey. 25:378-84, Ap '25.

Socialized Science Projects, by Donald Parrish. 40:137-45, Fe '40.

Sociological Aspect of Chemistry for Girls, by Will Courson. 19:823-7, De '19.

Some Aims in Teaching Elementary Chemistry, by R. K. McAlpine. 28:154-63, Fe '28.

Some Observations on the Teaching of Chemistry, by Charles H. Stone. 42:135-41, Fe '42.

Some of the Difficulties Involved in the Teaching of College Chemistry, by Kirby E. Jackson. 33:611-23, Je '33.

Some of the Factors Determining the Common Content of High School Chemistry, by Henry L. Gerry. 24:457-66, My '24.

Student 1957 - Chemist 1965, by J. R. Howell. 58:445-8, Je '58.

Suggestions for Teaching Organic Chemistry, by Robert H. Mitchell. 54:529-32, O '54.

Syllabus in Chemistry. 12:440-2, Mr '12.

Symposium on the Purpose and Organization of Chemistry Teaching in High Schools. 9:417-26, My '09; 9:547-54, Je '09; 9:658-65, O '09; 9:748-50, N '09; and 10:18-21, Ja '10.

Symposium on the Teaching of Physical Chemistry to Beginning Students. 3:144-61, Je '03.

Taking Stock in Chemistry Classes at Mid Year, by J. O. Frank. 29:39-43, Ja '29.

Teaching Chemistry by the Project Method, by Ellinor Garber. 21:454-7, My '21.

Teaching the Basic Principles of Applied Chemistry to High School Boys and Girls, by C. F. Gustafson. 11:616-23, O '11.

Teaching the Fundamental Quantitative Principles of Elementary Chemistry, by Howard W. Adams. 23:323-30, Ap '23.

Teaching the Fundamentals in Chemistry, by B. S. Hopkins. 21:122-7, Fe '21.

The Application of the Principles of Efficiency to the Teaching of Chemistry, by J. Norman Taylor. 21:826-35, De '21.

The Chemist and the Chemical Engineer, by Saverio Zuffanti. 37:1099-1103, De '37.

The Chemistry Program at East Technical High School, by E. Griffin Pierce. 45:231-41, Mr '45.

The Chemistry Teacher and the Reduced Budget, by B. S. Hopkins. 34:172-9, Fe '34.

The Chemistry Teacher's Opportunity, by Frank B. Wade. 18:307-12, Ap '18.

The Chief Object of High-School Chemistry, by O. L. Brauer. 16:443-6, My '16.

The College Requirement in Chemistry from the High School Standpoint, by Lyman G. Smith. 3:389-94, Ja '04.

The Content, Method, and Results of the High School Course in Chemistry, by Alexander Smith. 16:290-302, Ap '16.

The Correlation of High School and College Chemistry, by James Brown. 15:485-7, Je '15.

The Correlation of High School Chemistry and Daily Life, by John C. Hessler. 12:290-5, Ap '12.

The Educational Value of the History of Chemistry, by H. N. Goddard. 5:523-8, O '05.

The Experimental Viewpoint in Chemistry, by Alexander Smith. 8:582-90, O '08.

The First Course in Chemistry, by M. D. Sohon. 10:605-11, O '10.

The Function of Chemistry in the Modern High School, by W. J. Bray. 12:572-8, O '12.

The Future of Chemistry in the High School, by Robert H. Bradbury. 16:769-79, De '16; and 17:25-31, Ja '17.

The Idea of Electrons and Modern Science Teaching, by John C. Hessler. 23:361-8, Ap '23.

The Intensive Method in Chemistry, by John F. Woodhull. 6:585-8, O '06.

The Necessity of Chemistry in High School Training, by Chester A. Amick. 25:385-9, Ap '25.

The Need for a More Socialized Emphasis on Chemistry as Taught in the High School, by Bruce H. Guild. 31:1075-8, De '31.

The New Entrance Requirement in Chemistry at Massachusetts Institute of Technology, by Arthur A. Blanchard. 22:549-52, Je '22.

The Outline of a Course in Practical Chemistry for Girls, by Charles E. Dull. 20:841-5, De '20.

The Pedagogical Bearing of Chemistry on Physics, by Arthur John Hopkins. 4:22-30, Ap '04.

The Physical Notions of Entropy and Free Energy and Their Importance in General Chemistry, by E. P. Schoch. 5:445-51, Je '05.

The Place and Problems of Chemistry in the High School Curriculum, by Morris F. Stubbs. 27:741-8, O '27.

The Planting of Chemistry in America, by Rufus P. Williams. 2:75-82, Ap '02; and 2:139-48, My '02.

The Point of View in Chemistry, by Alexander Smith. 7:128-35, Fe '07.

The Project Method in Teaching Chemistry, by Ellinor Garber. 22:65-73, Ja '22.

The Psychology Underlying Instruction in Chemistry, by A. E. Brown and W. G. Bowers. 23:715-24, N '23.

The Pupil Before and After Taking Chemistry, by Alexander Smith. 3:189-207, O '03.

The Purpose and Method of the Chemistry Course in the Public High School, by Frank B. Wade. 10:299-303, Ap '10.

The Relation of High School Chemistry to General Chemistry in Colleges, by C. L. Fleece. 18:228-34, Mr '18.

The Relation of the Technical World to School Chemistry, by William Conger Morgan. 8:645-51, N '08.

The Science of Chemistry and the Consumer, by James R. Irving. 47:251-4, Mr '47.

The Segregation of Chemistry Students As to Their Needs and Abilities, by C. C. Warren. 38:53-9, Ja '38.

The Swing of the Chemistry Pendulum, by William Albert Earl Wright. 41:815-8, De '41.

The Teaching of Consumer Chemistry, by M. C. Crew. 39:545-52, Je '39.

The Teaching of Elementary Chemistry, by Robert H. Bradbury. 11:802-11, De '11.

The Training of the Industrial Chemist, by W. D. Richardson. 7:108-12, Fe '07.

The Utility of Mineralogy in Elementary Chemistry, by J. Norman Taylor. 21:460-2, My '21.

The Value of Chemistry as a High School Subject, by J. H. Allen. 10:721-31, N '10; and 10:788-800, De '10.

The Vitalizing of High School Chemistry, by A. E. Wood. 15:705-7, N '15.

The Vocabulary of Chemistry, by Geo. W. Muhleman. 47:515-20, Je '47; and 47:693-7, N '47.

The Volumetric Synthesis of Water as a Practical Quantitative Lecture Experiment, by Ernest F. Burchard. 2:460-3, Fe '03.

Today's Space Age Needs Chemistry's Cornucopia, by Marshall D. McCuen. 59:339-49, My '59.

Training for the Study of Chemistry, by H. R. Carveth. 1:350-6, De '01.

Trends in Subject Matter Organization in High School Chemistry, by M. Curtis Howd. 39:423-31, My '39.

Two Years With Chemistry Projects, by E. B. Chrisman. 39:162-4, Fe '39.

What and How Much in High School Chemistry, by Fredus N. Peters. 8:107-15, Fe '08.

What Are We Teaching in Chemistry?, by Henry L. Gerry. 24:361-6, Ap '24.

What Belongs in a High School Chemistry Course? 19:167-72, Fe '19.

What Chemistry Shall be Taught in High School and How It Shall be Correlated With College Chemistry, by Louis W. Mattern. 23: 665-71, O '23.

What College Men Think of High School Chemistry, by H. A. Webb. 23:155-62, Fe '23.

What of Chemistry Shall be Taught in the High School and How Shall It be Most Effectively Taught?, by L. M. Dennis. 2:446-50, Fe '03.

What Shall the Preparatory School Give in the Way of Chemical Training?, by William Hoskins. 3:338-40, De '03.

What Shall We Teach in Chemistry, by G. M. Bradbury. 35:368-73, Ap '35.

What Should a Student Get From a Beginning Course in Chemistry?, by Wm. McCracken. 19:75-82, Ja '19.

What Should be Taught in Beginning Chemistry?, by Professor F. S. Kedzie. 5:309-16, My '05.

Where Are We in Chemistry?, by William H. Wiley. 17:197-208, Mr '17.

Whitherward in Chemistry, by H. F. Sheldon. 7:468-75, Je '07.

Why Study Chemistry?, by Charles E. Munroe. 24:134-44, Fe '24.

Evaluation

A Chem. Quiz. Board, by Ralph E. Dunbar. 59:69-71, Ja '59.

A Chemistry Teacher Remembers, He Tried to Improve His Examinations, by B. Clifford Hendricks. 55:26-8, Ja '55.

A Comprehensive Chemistry Test, by B. J. Rivett. 23:377-86, Ap '23.

A Method for the Grading of Student Reports in Semimicro Quantitative Analysis, by Shirley W. Gaddis. 51:491-3, Je '51.

A New Method of Testing the Results of Performing Laboratory Experiments, by John M. Michener and J. A. Brownlee. 31:542-9, My '31.

A New Type of Test in Chemistry, by Ralph E. Wellings. 39:351-3, Ap '39.

Achievement in High School Chemistry - An Examination of Subject Matter, by S. R. Powers. 25:53-61, Ja '25.

An Electrical Self-Tester for Chemistry Students, by Carl F. Hanske. 40:655-8, O '40.

Chemistry Tests Available for Use in High School Classes, by Ralph E. Dunbar and Irving J. Grandy. 31:1100-2, De '31.

Interpretation of Results in Chemistry Teaching, by Jessie Caplin. 16:22-4, Ja '16.

Laboratory Techniques Test, by Harold C. McMullen. 38:274-6, Mr '38.

Measurement of the Results of the Teaching of Chemistry, by Henry L. Gerry. 24:793-804, N '24.

Report of the Second Annual Chemistry Week at Rhode Island State College, Kingston, by Joseph W. Ince. 25:743-4, O '25.

Science Tests; The New Type Versus the Old Type, by Leighton K. Smith. 26:49-52, Ja '26.

Service Tests for Chemistry, by B. Clifford Hendricks and O. M. Smith. 35:488-91, My '35.

Testing Results in Chemistry, by B. J. Rivett. 19:742-5, N '19.

Testing Results in Science Teaching, by Fredus N. Peters. 11:849-50, De '11.

The Conventional Examination in Chemistry and Physics Versus the New Types of Tests, by Earl R. Glenn. Part I, 21:666-70, O '21; 21:746-56, N '21; and 23:459-70, My '23.

The Measurement of Achievement in High School Chemistry, by William C. Curtis. 37:560-4, My '37.

The Modified True-False Item Applied to Testing in Chemistry, by William Albert Earl Wright. 44:637-9, O '44.

The Need and Use of a Scientific Measure of the Results of the Teaching of Chemistry, by Henry L. Gerry. 25:157-68, Fe '25.

The Point System of Grading as a Means of Increasing Pupil Participation in High School Chemistry Classes, by Kenneth E. Conn. 37: 811-22, O '37.

The Use of Standardized and Partly Standardized Tests in Chemistry at a Normal School, by Stephen G. Rich. 23:539-42, Je '23.

Three Chemistry Tests, by Vernon C. Chippee. 33:879-82, N '33.

Types of Tests Desirable for Chemistry and the Present Status of Their Development, by Henry L. Gerry. 25:918-22, De '25.

"What's Wrong" Testing of Laboratory Technic, by Ralph E. Dunbar and Robert Cooper. 35: 460-1, My '35.

Field Trips

A Practical Plan for a Chemical Inspection Tour, by Ralph E. Dunbar. 28:855-7, N '28.

Inspection of Chemical Industries by Students in the Secondary Schools, by C. A. Vallance. 12:381-7, My '12.

Laboratory Activities

A Form of Boyle's Law Apparatus. 13:544, Je '13.

Adventures in Undergraduate Research, by John R. Sampey. 57:396-8, My '57.

An Experiment to Illustrate Chemical Equilibrium, by Felix Lengfeld. 1:209, Se '01.

Chemistry Experiment as the Basis for Study of Fundamentals, by G. T. Franklin. 30:415-9, Ap '30.

Class Participation Exercises vs. Individual Laboratory Experiments in High School Chemistry, by Thomas Morse Barger. 36:386-92, Ap '36.

Criteria for Selecting Chemistry Experiments, by Robert H. Long. 40:468-9, My '40.

Effectiveness in Laboratory Work in Chemistry, by Herbert R. Smith. 27:267-71, Mr '27.

Experimental Chemistry Simplified, by C. C. Kiplinger. 15:132-4, Fe '15.

Experiments on the Removal of Oxygen from the Air, by O. Ohmann. 1:30-3, Mr '01.

From a Laboratory Notebook, by James Henry Willock. 10:636-7, O '10.

How to Use Projects in Teaching High School Chemistry, by Louis Panush. 52:291-9, Ap '52.

Influence of Expectation on Quantitative Work, by N. A. Harvey. 1:121-3, My '01.

Laboratory Efficiency, by H. R. Smith. 18: 242-6, Mr '18.

Laboratory Exercises in General Chemistry - Transition Point, Suspended Transformation, Law of Successive Reactions, by Wm. Lloyd Evans. 14:402-3, My '14.

Learning from Experience, by John F. Woodhull. 12:553-9, O '12.

Profit and Loss in Experimental Chemistry, by Lyman C. Newell. 7:165-75, Mr '07.

Purposeful and Meaningful Chemistry Laboratory Work, by Herman R. Rahn. 47:614-6, O '47.

Quantitative Chemical Experiments for Beginners, by G. W. Benton. 1:144-9, My '01.

Quantitative Experiments in Chemistry for High Schools, by Lyman C. Newell. 1:12-8, Mr '01.

Semi-Micro Procedure in High School Laboratories, by Karl J. Aaberg. 55:486-8, Je '55.

Some Desirable Characteristics in Chemistry Demonstration Experiments, by Ralph E. Dunbar. 36:635-7, Je '36.

Some Experiences with Teacher-Pupil Planning of Laboratory Work in Chemistry, by G. D. McGrath. 44:793-7, De '44.

Some Opportunities in Chemistry for Problem-Solving, by James A. Rutledge. 53:605-7, O '53.

Teaching Chemistry in the Laboratory, by B. S. Hopkins. 19:295-301, Ap '19.

Teaching Pupils to Think in Science - Chemistry, by Elbert C. Weaver. 49:191-6, Mr '49.

The Case Against Qualitative Laboratory Experiments in General Chemistry, by Edward Ellery. 10:388-91, My '10.

The Character of Laboratory Work for Students of Elementary Chemistry, by W. G. Bowers. 25:711-20, O '25.

The Conduct of Laboratory Work in Elementary Chemistry, by W. G. Bowers. 25:828-32, N '25.

The Function of Laboratory Work in Elementary Chemistry Courses, by H. I. Schlesinger. 35:585, Je '35.

The Importance of Laboratory Work as Compared with Text Book, Etc., in the Study of Chemistry, by W. G. Bowers. 24:606-13, Je '24.

The Ratio of Quantitative to Qualitative Experiments in Chemistry, by H. P. Talbot. 4:34-5, Ap '04.

The Semi-Micro Approach in a First Chemistry Laboratory, by Alfred S. Brown and Foster H. Hoff. 50:115-8, Fe '50.

The Use of Qualitative Tests of Foods in Teaching General Chemistry, by John C. Olsen. 10:612-6, O '10; and 10:714-20, N '10.

What Constitutes Efficient Demonstration Work in General Chemistry, by Raymond R. Jared. 28:43-9, Ja '28.

Would Intensified Laboratory Teaching and Testing Affect the Status of the Lecture-Laboratory Versus the Lecture-Demonstration Method of Teaching Chemistry Controversy?, by William Albert Earl Wright. 42:185-6, Fe '42.

Mathematics in Chemistry

Applied Mathematics in General Chemistry, by Sister M. Ignatia. 47:563-8, Je '47.

Mathematical Problems in Elementary Chemistry, by W. G. Bowers. 28:975-80, De '28.

Some Simple Uses of Mathematics to Clarify Chemical Principles, by G. T. Franklin. 29: 494-6, My '29.

The Applications of Mathematics to Chemistry, by W. Conard Fernelius. 29:71-8, Ja '29.

The Mathematics of Elementary Chemistry, by Principal J. McIntosh. 7:383-8, My '07.

The Mathematics Needed in Freshman Chemistry, by Lewis W. Williams. 21:654-5, O '21.

The Use of Algebra in Writing Chemical Equations, by Robert W. Curtis. 15:376-8, My '15.

Research Reports

A Brief Survey of the Mechanical Fundamentals of High School Chemistry Taught in the United States, by Joseph E. Malin. 32:149-55, Fe '32.

A Comparison of Two Methods of Teaching Formula Writing in High School Chemistry, by Luther Melvin Colyer and Kenneth E. Anderson. 52:50-9, Ja '52.

A Discussion of a Report of a Chemistry Survey, by S. R. Powers. 16:400-6, My '16.

A New Trend in High School Chemistry, by Clyde E. Riley. 36:161-2, Fe '36.

A Practice Study in Paragraph Summarizing in Chemistry, by Kimber M. Persing. 24:598-604, Je '24.

A Preliminary Study on the Difficulty of Certain Chemistry Topics, by Alfred M. Ewing. 31:872-3, O '31.

A Quantitative Analysis of Aims in Teaching High School Chemistry, by Jacob Cornog and J. C. Colbert. 24:168-73, Fe '24.

A Questionnaire in Chemistry, by Erle M. Billings. 16:134-8, Fe '16.

A Study of Chemistry Examination Questions Given by Various States and Cities in the Middle West and East, by Edith Garner. 27: 140-3, Fe '27.

A Study of Difficulties in Chemistry, by Arthur R. Stewart. 28:838-48, N '28.

A Study of High-School Chemistry Students Electing Chemistry in College, by Ralph E. Dunbar and Elgie B. Coacher. 32:675-7, Je '32.

A Study of the Achievements of Students of General Chemistry in College, by Willis J. Bray. 32:19-29, Ja '32.

A Study of the Attainments of High School Pupils in First Year Chemistry, by J. Carleton Bell. 18:425-32, My '18.

A Study of the Chemistry Found in Agricultural Periodicals, by Arlee Nuser. 27:471, My '27.

Achievements of Pupils in Chemistry, by Stephen G. Rich. 25:145-9, Fe '25.

Aim and Content of Chemistry Laboratory Manuals, by Clarence M. Pruitt. 27:507-11, My '27.

An Experiment in Visual Education in Elementary College Chemistry, by B. S. Hopkins and H. G. Dawson. 32:353-63, Ap '32.

An Experiment in the Teaching of High School Chemistry, by J. M. Levelle. 37:946-52, N '37.

An Experimental Evaluation of the Semimicro Method of Teaching High School Chemistry, by Fred T. Weisbruch. 46:768-78, N '46.

An Experimental Study of Methods for Recording Laboratory Notes in High School Chemistry, by Morris F. Stubbs. 26:233-9, Mr '26.

An Objective Essay Examination in Chemistry, by Amos G. Horney. 34:380-7, Ap '34.

Biographical Content of High School Chemistry Textbooks, by Sister M. Agnese, N.D. 36:595-603, Je '36.

Changing Conception of Teaching Helps in High-School Chemistry Textbooks, by Ralph E. Dunbar. 38:534-41, My '38.

Chemistry in the News, by Benjamin J. Novak. 42:878-83, De '42.

Chemistry Teaching in Nebraska, by B. Clifford Hendricks and John S. Chambers. 29: 138-41, Fe '29.

College Entrance Examination Board Questions in Chemistry, by Henry Lester Gerry. 20: 845-50, De '20.

Commercial Processes in High School Chemistry - A Qualitative Analysis, by Joseph N. Nathanson. 26:628-33, Je '26.

Comparison of Chemistry Text Books, by Wilhelm Segerblom. 29:277-85, Mr '29.

Comparison of the Effectiveness of the Single Laboratory Period and the Double Laboratory Period in High School Chemistry, by L. W. Applegarth. 35:627-33, Je '35.

Conditions Under Which the Teacher of Chemistry in High Schools is Working, by Albert L. Smith. 10:237-40, Mr '10.

Correlation Between General Chemistry in the High School and University, by Albert E. Goldstein. 37:151-7, Fe '37.

Correlation of Test-Scores in Chemistry and Handwriting, by Stephen G. Rich. 23:524-5, Je '23.

Diagnostic Teaching of Chemistry, by Francis W. Howes. 34:709-13, O '34.

Do Students Who Study Chemistry in High School Elect that Subject in College?, by Cliff R. Otto and Mabel Claire Inlow. 30: 292-4, Mr '30.

Effectiveness of Sound Motion Pictures in Teaching a Unit on Sulfur in High School Chemistry, by Courtenay M. Nelson. 52:8-10, Ja '52.

Experimentation in Teaching Chemistry, by Leonard A. Ford. 38:924-6, N '38.

High School Chemistry Proves Its Worth, by John Rosengren. 43:162-4, Fe '43.

I Ask the Student - The Report of an Investigation, by Philip Q. Freeman. 26:624-8, Je '26.

Influence of High School Science on Grades in College Chemistry, by Guy A. West. 32: 911-3, N '32.

Integration of Personality Evoked by Pandemic Chemistry, by Ernestine M. J. Long. 37:902-10, N '37.

Measurable Objectives for General College Chemistry, by B. Clifford Hendricks and O. M. Smith. 36:747-52, O '36.

Report of Chemistry Survey, by S. R. Powers. 15:810-9, De '15.

Results With Standard Chemistry Tests, by B. J. Rivett. 21:720-2, N '21.

Selection of a High School Chemistry Text, by M. P. Schultz. 35:915-22, De '35.

Student Reactions to Semimicro Chemistry Laboratory, by Carl Engels. 60:521-3, O '60.

Study of Containers for Laboratory Chemicals, by M. W. Welch. 29:84-6, Ja '29.

Survey of Manipulative Operations Performed by Technicians in Metallurgical Laboratories, by Lester A. Twork. 51:557-60, O '51.

Technique in Chemistry Teaching, by H. A. Cunningham. 22:356-62, Ap '22.

Testing Laboratory Resourcefulness, by H. A. Webb. 22:259-67, Mr '22.

The Achievement of High School and Freshman College Students in Chemistry, by S. R. Powers. 21:366-77, Ap '21.

The Coefficient of Absorption of Students in Chemistry, by R. H. Steinberg. 35:297-301, Mr '35.

The Correlation Between Measures of Mental Ability and Measures of Achievement in Chemistry, by S. R. Powers. 28:981-6, De '28.

The Effect of High School Chemistry on Success in Beginning College Chemistry, by Paul E. Clark. 38:133-4, Fe '38.

The Mathematics Used in Solving Problems in High School Chemistry, by J. L. Rendahl. 30: 683-9, Je '30.

The New Courses in High School Chemistry, by Clarence P. Stevens. 32:244-9, Mr '32.

The Relation Between Teacher Load and Student Achievement, by Kenneth E. Anderson. 50:468-70, Je '50.

The Sectioning Problem in General Chemistry, by A. J. Currier. 30:919, N '30.

The Status of Chemical Education in the High Schools of the State of Washington, by Thomas G. Thompson and F. A. Rantz. 28:68-73, Ja '28.

The Status of Laboratory Work in the High Schools of the Country, by W. G. Bowers and A. E. Brown. 24:815-22, N '24.

The Status of Special Graduate Courses for the High School Chemistry Teacher, by W. G. Kessel. 58:404-9, My '58.

The Training of Teachers of Chemistry in Teachers Colleges, by Willis J. Bray. 33: 319-22, Mr '33.

The Value of Valence and When to Teach It, by E. E. Rademacher. 22:362-7, Ap '22.

Trends in the Organization of High School Chemistry Since 1920, by Carroll C. Hall. 38:766-72, O '38.

What High School Students Like and Dislike About Chemistry, by C. R. Foster, Jr. and Ernest B. Wilson. 38:1024-9, De '38.

Why Some Students Do Not Elect Chemistry, by Cliff Otto. 33:996-8, De '33.

Teachers

A Saturday Course in Physical Chemistry for Teachers, by Augustus Klock. 8:482-3, Je '08.

Addenda - The Status of Special Graduate Courses for the High School Chemistry Teacher, by W. G. Kessel. 59:539-40, O '59.

Guidance of Prospective High School Chemistry Teachers, by Leonard A. Ford. 53:17-8, Ja '53.

Preparation and Training of the Teacher of Chemistry, by Lyman C. Newell. 2:487-500, Mr '03.

Some New Year Resolutions, by Frank B. Wade. 31:9-10, Ja '31.

The Place of Industrial Chemistry in the Training of High School Chemistry Teachers, by William Albert Earl Wright. 44:257-9, Mr '44.

The Relation of the Secondary School Teacher to the Research Worker, by Marion Sykes. 22:436-8, My '22.

The Training of Chemistry Teachers, by L. W. Williams. 24:51-7, Ja '24.

The Training of Chemistry Teachers, Prospective and In-Service, by B. S. Hopkins. 25: 233-8, Mr '25.

The Training of Science Teachers, Here and Abroad, by N. Henry Black. 30:153-60, Fe '30.

What Should the Chemistry Teacher Know?, by Frank B. Wade. 20:403-9, My '20.

Teaching Techniques

A Balance for Weighing One Ten Thousandth Part of a Milligramme. 11:550-1, Je '11.

A Blank Periodic Table for Chemistry, by Robert H. Long. 45:406-8, My '45.

A Book Support for the Chemical Laboratory, by M. G. Mellon. 29:728-30, O '29.

A Cheap and Efficient Oxyhydrogen Electrolytic Apparatus, by C. E. Linebarger. 1: 487-8, Fe '02.

A Cheap and Serviceable Ventilating Hood, by G. M. Lisk. 19:721-2, N '19.

A Chemical Exhibit Used to Increase Interest in High School Chemistry, by Mary I. Woolley. 31:67-9, Ja '31.

A Chemical Vaudeville Show, by Carl Otto and Harold B. Friedman. 28:755-63, O '28.

A Chemistry Card Game, by Louis Panush. 51: 532-4, O '51.

A Chemistry Study Outline, by C. M. Haag. 30:44-5, Ja '30.

A Combined Density Bottle and Dilatometer, by E. T. Bucknell. 15:72-5, Ja '15.

A Combined Filter-Funnel and Beaker, by George George. 2:345-6, De '02.

A Contract in Chemistry: Calcium and Its Compounds, by Ira C. Davis. 31:292-6, Mr '31.

A Convenient Apparatus for Proving that a Flame is Burning Gas, by J. M. Arthur. 10: 324, Ap '10.

A Convenient Method for Teaching Laboratory Technique, by Wesley W. Wendlandt. 57: 391-2, My '57.

A Convenient Sodium Flame, by G. G. Kretchmar. 29:144, Fe '29.

A Demonstration for Physical Science, by Julius S. Miller. 40:272, Mr '40.

A Demonstration of the Weight of a Liter of Carbon Dioxide, by C. E. Linebarger. 1: 430-3, Ja '02.

A Demonstration on Laboratory Technique in High School Chemistry, by Erwin Pfefferkorn. 37:476-9, Ap '37.

A Demonstration Procedure for a Proof of the Polarity of Molecules, by A. J. Hoffman. 58:604, N '58.

A Dynamic Chemical Museum, by Ralph E. Dunbar. 56:535-7, O '56.

A Few Theories of Modern Chemistry, by Robert W. Boreman. 16:448-51, My '16.

A Fuel that Burns in Steam, by B. Clifford Hendricks. 33:102-3, Ja '33.

A Gas Pipette, by P. G. Agnew. 5:347, My '05.

A Glass Stopper Puller, by Frank R. Pratt. 32:314-6, Mr '32.

A Gram Molecular Volume Box, by A. H. Beebe. 23:73-4, Ja '23.

A Graphical Representation of the Periodicity of the Chemical Elements, by Wilhelm Segerblom. 5:38-9, Ja '05.

A Half Hour with a Chemist, by C. H. Stone. 35:599-603, Je '35.

A Handy and Automatic Gas Generator, by Theodore Cohen. 15:23-5, Ja '15.

A Kjeldahl Safety Trap, by Hilton Ira Jones. 15:708-9, N '15.

A Laboratory Suggestion, by M. J. McHenry. 33:322, Mr '33.

A Lecture Demonstration to the Lead Chamber Process, by Louis R. Welch. 33:983-4, De '33.

A Lecture Experiment Illustrative of Valence, by Launcelot W. Andrews. 4:143-5, Je '04.

A Method for Teaching Formula Writing and Structural Diagraming in High School Chemistry, by Kenneth E. Anderson. 47:46-7, Ja '47; 47:188-90, Fe '47; and 47:269-71, Mr '47.

A Method of Carbon Dioxide Analysis, by F. C. Irvin. 11:546-9, Je '11.

A Method of Classifying the Inorganic Acids for Analysis, by W. S. Leavenworth. 7:1-7, Ja '07.

A Method of Determining the Relative Amounts of Oxygen and Nitrogen in the Atmosphere, by George C. Ashman. 2:155-6, My '02.

A Method of Preparing Standard Solutions, by L. B. Altaffer. 8:658-9, N '08.

A Method of Teaching Equation Writing, by Charles H. Stone. 35:409-10, Ap '35.

A Method of Teaching Ionization, by Leroy F. Swift. 18:46-8, Ja '18.

A Method of Using the History of Chemistry as a Teaching Aid, by I. W. Wade. 28: 877-80, N '28.

A Modern Look at the Conservation Laws, by Gerald Osborn. 57:345-6, My '57.

A Modern View of Valence, by Robt. W. Boreman. 16:5-6, Ja '16.

A New Aid to Teaching Valence, by Charles Brauer. 51:370, My '51.

A New Approach to the Lecture - Demonstration, by Carroll C. Hall. 50:283, Ap '50.

A New Gas Generator, by Fredus N. Peters. 8:283-5, Ap '08.

A New Lecture-Table Experiment with Phosphorus, by Edward H. Kraus. 4:95, My '04.

A New Locker System for Chemical Laboratories, by W. J. Bray. 15:206-8, Mr '15.

A New Method for Determination of Water Hardness, by L. G. Knowlton. 52:445-8, Je '52.

A Nickel Project in Chemistry, by Frank B. Wade. 50:349-52, My '50.

A Novel Chemist-Tree, by L. E. Blackman. 35:925-7, De '35.

A Periodic Arrangement of the Elements to Meet Modern Chemistry Needs, by K. Gordon Irwin. 38:654-65, Je '38.

A Physical Science Class Checks an Advertising Claim by Haym Kruglak. 57:375-81, My '57.

A Practical Valence Experiment, by Paul H. Fall. 18:325-7, Ap '18.

A Presentation of the Electrical Theory of Valence, by W. H. Spurgin. 22:205-13, Mr '22.

A Problem and Some Unexpected Answers, by Wilhelm Segerblom. 26:945-7, De '26.

A Quantitative Experiment for General Chemistry, by Robert W. Curtis. 13:37-42, Ja '13.

A Quantitative Experiment for High School Chemistry, by Druley Parker. 35:75-6, Ja '35; and 35:173-4, Fe '35.

A Safety Generator for Gases, by Theodore Cohen. 14:340-2, Ap '14.

A Second Look, by B. Clifford Hendricks. 51:741-4, De '51.

A Sensitive Thermometer, by Wilhelm Segerblom. 9:298, Mr '09.

A Simple Acid and Alkali-Proof Label for Reagent Bottles, by E. P. Schoch. 5:347-8, My '05.

A Simple and Permanent Apparatus for Demonstrating Conductivity of Electrolytes, by Harold J. Abrahams, William Blitzstein, and Frederick Luborsky. 44:730-4, N '44.

A Simple Automatic Generator for Carbon Dioxide or Hydrogen Sulphide, by William M. Blanchard. 12:6, Ja '12.

A Simple Device for Illustrating the Periodic Law, by Charles Baskerville. 4:37-9, Ap '04.

A Simple Device with Chemical Equations, by Eldred E. Jungerich. 4:93-5, My '04.

A Simple Gas Generator for Analytical Operations, by James McConnell Sanders. 8:212, Mr '08.

A Simple Glass Tube Cutter, by Wallace A. Hilton. 53:264, Ap '53.

A Simple Method for Determining the Equivalent Weight of Sodium, by William M. Blanchard. 8:737-8, De '08.

A Simple Method for Purifying Mercury, by W. H. Hawkes. 2:215-7, O '02.

A Simple Method of Removing "Frozen" Glass Stoppers, by Saylor C. Cubbage. 39:315, Ap '39.

A Simple Nitrogen Fixation Apparatus, by Robert H. Long. 39:657-8, O '39.

A Simple, Practical Problem in Analysis, by G. T. Franklin. 29:414-8, Ap '29.

A Simple Spectro-Colorimeter, by G. A. Shook and George B. Sargent. 24:495-500, My '24.

A Simplified Method for the Determination of Analytical Groups IV and V, by George E. F. Brewer. 45:38-9, Ja '45.

A Strong Motivation in Chemistry, by Charles H. Stone. 37:458-63, Ap '37.

A Successful Project Plan in Chemistry, by S. Aleta McEvoy. 31:78-9, Ja '31.

A System for the Preparation of Qualitative Unknowns, by Louis J. Curtman. 10:513-7, Je '10.

A Teaching Device for Reactions Resulting in Shrinkage in Volume, by Harold J. Abrahams. 54:699-700, De '54.

A Test of Gas Burners, by H. W. Harmon. 12:565-6, O '12.

A Unit System for Laboratory Apparatus, by Oscar R. Foster, 17:508-10, Je '17.

A Universal Center for Molecular Models, by George K. Estok. 58:70-1, Ja '58.

A Use for the Graph in Elementary Chemistry, by Chas. H. Stone. 36:281-3, Mr '36.

A Useful Piece of Apparatus, by Floyd L. Darrow. 15:149-50, Fe '15.

A Visible Fire-Extinguisher, by Theodore Cohen. 14:796-7, De '14.

Accurate Weighing Without the Use of Small Weights, by George W. Todd. 15:829-30, De '15.

Acetylene Generator, by Theodore Cohen. 14:342-4, Ap '14.

Adapting the Slide Rule to High School Chemistry, by Hoyt C. Graham and John A. Huff. 30:525-8, My '30.

Adopting a Method of Balancing Oxidation-Reduction Equations, by Ralph E. Welling. 38:511-4, My '38.

Amplifying the Chemical Equation, by Eugene W. Blank. 34:941-2, De '34.

An Aid in Keeping High School Chemistry Classwork Interesting, by L. K. Reflogle. 23:118-21, Fe '23.

An Aid in Teaching Percentage Composition, by H. F. Cope. 39:404, My '39.

An Alcohol Burner for the Laboratory, by B. S. Garvey. 25:181, Fe '25.

An Apparatus for Demonstrating Adsorption by Charcoal, by Robert H. Long. 46:423-4, My '46.

An Attachment for Automatic Distillation, by Roy W. Kelly. 15:564-5, O '15.

An Automatic Still for Seventy Cents, by H. A. Webb. 17:134-5, Fe '17.

An Avenue of Special Interest for Johnny Q. Beginner, by Charles H. Stone. 37:532-3, My '37.

An Easy Method of Cleaning Mercury, by B. W. Peet. 5:244, Ap '05.

An Electric Furnace for Lecture Demonstrations, by Walter O. Walker. 23:72-3, Ja '23.

An Exercise in Naming Inorganic Compounds, by M. E. Lash. 44:840-4, De '44.

An Experiment Illustrating the Law of Multiple Proportions, by Warren Rufus Smith. 1:87-8, Ap '01.

An Experiment in Adolescent Ingenuity, by Otto J. Walrath. 46:468-71, My '46.

An Experiment in the Manufacture of Soap, by H. A. Webb. 14:446-7, My '14.

An Experiment on the Hydrogen Equivalent of Metals, by Eugene W. Blank. 32:1025, De '32.

An Experiment - "Relative Value of Commercial Ammonia Waters by Titration (Neutralization)" with Comments Apropos, by Earl Eastman. 16:681-5, N '16.

An Experiment to Show the Gain in Weight of Sulfur in Air, by Delia M. Stickney and Wm. L. Kieman. 5:93-4, Fe '05.

An Experiment with Two Familiar Hydrocarbons, by H. A. Webb. 14:447, My '14.

An Improved and Convenient Apparatus for Burning Phosphorous in a Volume of Air, by Mennow M. Gunkle. 55:521-4, O '55.

An Improved Electrolysis Apparatus, by W. A. Porter. 43:426-7, My '43.

An Improved Laboratory Exercise, by Carl M. Kibler. 13:449, My '13.

An Improved Portable Gas Generator, by Herbert N. McCoy. 5:197-9, Mr '05.

An Inexpensive Automatic Gas Generator, by Walter D. Bean. 8:408, My '08.

An Inexpensive Electrical Conductivity Apparatus, by Waldemar S. McGuire and Saverio Zuffanti. 37:364-6, Ap '36.

An Inorganic Preparation, by Nicholas Knight. 11:428-9, My '11.

An Interesting Application of the Algebraic Method of Balancing Chemical Equations, by Arthur Porges. 38:853-4, N '38.

An Interesting Experiment with Phosphorus, by Nicholas Knight. 6:193, Mr '06.

An Introduction to the Study of Chemistry, by LeRoy Reames. 37:299-302, Mr '37.

Analysis of Nitric Acid, by B. W. Peet. 5:346, My '05.

Analysis of Potashes, by Wilhelm Segerblom. 3:98-102, My '03.

Apparatus for Experiments in Electrolysis, by Warren Rufus Smith. 1:259-61, O '01.

Apparatus for Showing Conductivity of Solutions, by Conrad E. Ronneberg. 24:301-3, Mr '24.

Apparatus for Transmitting Gas from One Vessel to Another, by J. A. Griffin. 5:195-7, Mr '05.

Applications of Ultrasonic Waves in Chemistry, by Ernest Yeager. 52:133-42, Fe '52.

Atomic Bingo, by Manford J. Ferris. 51: 181-2, Mr '51.

Atomic Structure Picture Board and Its Use in the Classroom, by Clair L. Wade. 36: 190-1, Fe '36.

Atomic Study Curve, by John P. Basnar. 49: 9-13, Ja '49.

Automatic Gas Generator, by Robert W. Curtis. 14:234-5, Mr '14.

Background in the Study of Valence, by G. T. Franklin. 27:414-8, Ap '27.

Better Laboratory Water for Less, by Joseph E. Dickinson. 54:748-55, De '54.

Blackboard Stencils, by Alfred J. Aubry. 59:609-12, N '59.

Bohr's Model of an Atom, by David E. Laird. 60:467-70, Je '60.

Calculation of the Simplest Chemical Formula from the Percentage Composition, by O. L. Brauer. 16:148-51, Fe '16.

Catalysis, by Truman J. Moon. 14:602-3, O '14.

Chemical Plants, by Raymond F. Holden. 8: 652-8, N '08.

Chemical Theories Concerning Ions and Electrons, by John H. Card. 24:350-60, Ap '24.

Chemistry and Romance, by Amber Baldwin. 45:87-9, Ja '45.

Chemistry in Daily Life, by Charles M. A. Stine. 29:751-3, O '29.

Chemistry Made Easy, by H. R. Rahn. 41: 42-5, Ja '41.

Chemistry Teaching with Movable Magnetic Models, by William T. Lippincott. 56: 125-6, Fe '56.

Classroom Demonstrations with Hydrogen, by L. C. Cooke. 24:250-4, Mr '24.

Class Work in Industrial Chemistry, by Robert M. Ladd. 19:633-42, O '19.

Color Slides of the Periodic Chart, by F. P. Cassaretto. 53:650-2, N '53.

Communal Chemistry, by Lewis B. Allyn. 12: 579-84, O '12.

Compressed Air for the Laboratory, by H. J. Wing. 23:69-70, Ja '23.

Computing the Exact Mass in Grams of an Atom, by Donald L. Cole. 34:958-62, De '34.

Cooling Through a Change of State, by C. K. Studley. 9:334-6, Ap '09.

Crystallization, by Franklin T. Jones. 12: 380, My '12.

Cutting Down Chemical Laboratory Expenses in High Schools, by Norman B. Adkison. 17:648, O '17.

Cutting the Cost of High School Chemistry, by Shirley W. Gaddis. 49:69-72, Ja '49.

Demonstrating Simple Valence in High School Chemistry, by Mennow M. Gunkle. 53:713-5, De '53.

Demonstrating the Law of Conservation of Matter, by Frank Cook. 37:167, Fe '37.

Demonstrating the Migration of Ions, by Saverio Zuffanti. 36:502-4, My '36.

Demonstration Device for the Conductivity of Electrolytes, by F. P. Cassaretto. 56: 339-40, My '56.

Demonstrations for General Chemistry, by Robert H. Long. 49:453-4, Je '49.

Demonstrations on Some Incendiary Materials, by Joseph S. Rosen. 43:630-2, O '43.

Demonstrations with Radioisotopes for the High School Chemistry Class, by George J. Goldsmith. 55:179-89, Mr '55.

Department of Chemistry - Englewood High School, Chicago, by Albert L. Smith. 9: 29-33, Ja '09.

Detection of Sulphur Dioxide, by Thomas R. Moyle. 14:630-1, O '14.

Diffusion of Gases, by L. P. Ramenstein. 24:604-5, Je '24.

Economy in the Chemical Laboratory, by Chas. H. Stone. 35:34-7, Ja '35.

Effective High School Recruiting, by R. E. Dunbar and F. H. Sands. 55:66-9, Ja '55.

Effusion Apparatus for Demonstration of Graham's Law, by C. R. Johnson and J. P. Finfrock. 41:18-20, Ja '41.

Electricity and Chemistry - Some Demonstration Experiments, by Charles H. Stone. 38: 250-5, Mr '38.

Electrochemistry, by M. deKay Thompson. 31: 199-205, Fe '31.

Electrolysis of Salt Solutions, by W. A. Porter. 42:539-41, Je '42.

Electrolysis of Sodium Chloride, by M. D. Sohon. 6:769, De '06.

Electrolysis of Sodium Hydroxide, by G. Ross Robertson. 15:582-4, O '15.

Electrolysis of Water, by F. Joseph Lorz. 34:811, N '34.

Electrolytic Experiments in High School Chemistry, by Harold J. Abrahams. 34: 986-92, De '34.

Electromagnetic Theory of Light for Students of Chemistry, by George Antonoff and Robert J. Conan, Jr. 48:597-603, N '48.

"Equal Volumes, Equal Numbers of Particles," by Frank B. Wade. 44:695-9, N '44.

Examination of Baking Powders, by Warren Rufus Smith. 2:342-4, De '02.

Experiments Concerning the Resistance of Water, by Martin H. Patrick. 49:329-31, Ap '49.

Experiments for Chemistry Clubs, by Alden H. Struble. 40:418-26, My '40.

Experiments for Detecting Food Adulterants, by Gilbert H. Trafton. 7:476-80, Je '07.

Experiments in Allotrophy. I, Arsenic and Iron Allotropes, by Eugene W. Blank. 32: 595-7, Je '32; and II, Oxygen and Phosphorus Allotropes, 32:757-9, O '32.

Experiments in Chemistry, by Jessie Caplin, et al. 14:345-9, Ap '14.

Experiments on Dyeing for High School Classes in Chemistry, by Gilbert H. Trafton. 11:643-5, O '11.

Experiments with Dyes, by Warren R. Smith. 5:451-3, Je '05.

Extracting Aluminum from its Ore, by Walter McCrory. 40:215-20, Mr '40.

First Year Chemistry and the Use of the Periodic Law, by P. M. Glasoe. 24:291-5, Mr '24.

Flame Testing, by Dick Bateman and Bertram Dingle. 41:814, De '41.

Fuels, a Contract in High School Chemistry, by Shelby H. Wilson. 36:25-33, Ja '36.

Gas Flames and Gas Explosions, by W. F. Roecker. 15:209-10, Mr '15.

Gas Generator, by George A. Cowen. 1:306-7, N '01.

Gas Generator, by Virgil H. Best. 29:468-9, My '29.

Graphs in Chemistry, by Ralph E. Wellings. 33:548-50, My '33.

Handy Homemade Atom Models, by W. J. Bray. 17:751, N '17.

Helping Students Visualize Relationships Between Gas Volumes and Chemical Reactions, by Robert H. Long. 48:43-6, Ja '48.

Helping the Chemistry Beginner Grasp Formulas and Nomenclature Flash Cards, by Francis C. Coulson. 33:511-5, My '33.

High School Chemistry and the Periodic System, by P. M. Glasoe. 24:700-8, O '24.

High School Chemistry Students' Concepts of Atomic and Molecular Structure, by M. J. W. Phillips. 42:813-6, De '42.

High Speed Electrolysis of Water Without a Battery, by Albert R. Clish. 40:211-4, Mr '40.

Hints for the Chemist's Secretary, by Ralph E. Dunbar. 37:880, O '37.

Household Safety - A Chemistry Club Project, by William C. Curtis. 43:837-42, De '43.

How I Attempt to Teach the Meaning of a Chemical Formula to High School Juniors, by Frank B. Wade. 11:122-5, Fe '11.

How May Local Interest in Chemistry Be Increased?, by C. E. Osborne. 21:128-34, Fe '21.

How to Make a Hydrogen Generator, by R. H. Kenyon. 6:588-9, O '06.

How to Tell Students How to Study Chemistry, by W. G. Bowers. 27:585-9, Je '27.

Hydrolysis Modernized, by Elbert C. Weaver and Lawrence S. Foster. 46:546-50, Je '46.

Illustration of Molecular Motion, by J. Norman Taylor. 20:514-5, Je '20.

Incendiaries, by Daniel R. Appleton. 42:433-40, My '42.

Instructional Material for the Small Laboratory, by John J. Condon. 30:770-4, O '30.

Introducing Formulas and Equations to the Chemistry Beginner, by Francis C. Coulson. 31:975-9, N '31.

Ion Visits the Realm of Air, by J. A. Shelton. 26:960-5, De '26.

Ionization Theory. Demonstration with Application to Electrolysis, by Harry A. Carpenter. 9:667-71, O '09; and 9:743-7, N '09.

Iron Burns, Why the Sulfur?, by H. Lynn Bloxom. 36:385, Ap '36.

Isotopes in the General Chemistry Course, by Mel Gorman. 50:649-51, N '50.

Kem - An Instructive Chemistry Card Game, by Dorothy Brown. 32:519-21, My '32.

Labor Saving Devices, by F. A. Hay. 23:774-6, N '23.

Laboratory Devices for Elementary Chemistry, by Robert W. Curtis. 11:726-30, N '11.

Laboratory Unknowns in General Chemistry, by Lyman J. Wood and Seward E. Owen. 27:919-25, De '27.

Lecture Experiment for Manufacture of Water-Gas, by G. R. Robertson. 14:244-5, Mr '14.

Lesson Planning in Chemistry, by J. A. Ernest Zimmerman. 27:293-7, Mr '27.

Let's Make Pop, by Benjamin H. Stasch. 50:442-4, Je '50.

Liesegang Rings on Paper, by Will S. DeLoach, Bobbye K. Allen, and Oscar P. Chilson. 56:641-6, N '56.

Liquid Ammonia as a Solvent and Reaction Medium, by Henry Wolthorn. 33:288-92, Mr '33.

Magnetic Models for Complex Ions and Molecules: Coordination Number Four, by Wesley W. Wendlandt. 57:145-6, Fe '57.

Maintaining Laboratory Hardware, by Gerald Osborn. 52:527, O '52.

Making a Chemical Collection, by Wilhelm Segerblom. 9:340-6, Ap '09; and 9:426-32, My '09.

Manipulation of Gas Holders by Elementary Students, by C. A. Broutlecht. 23:776, N '23.

Marking Crucibles, by J. E. Huber. 16:451, My '16.

Method for Distilling Water, by H. K. Rhodes. 15:435, My '15.

Methods and Importance of pH and Acidity Measurements, by Malcolm Dole. 40:303-14, Ap '40.

Methods of Illustrating Crystallization, by J. E. Stannard. 12:563-4, O '12.

Methods of Increasing the Efficiency of Pupil and Teacher in Secondary-School Chemistry, by Wilhelm Segerblom. 16:481-7, Je '16.

Models for Chemistry Teaching, by D. C. Barrus. 30:678-80, Je '30.

Moissan's Work with the Electric Furnace, by Felix Lengfeld. 1:359-62, De '01.

Molecular Models in the Teaching of Chemistry, by Saverio Zuffanti. 43:534-8, Je '43.

Molecule, A New Chemistry Card Game, by Sherman Sparks. 40:364-5, Ap '40.

More Economies in the Chemistry Laboratory, by Charles H. Stone. 39:836-9, De '39.

Name the Elements - A Game of Colors, by Milton G. Wolf. 41:485-8, My '41.

New Aids for Teaching the Periodic Law, by George A. Scherer. 49:91-7, Fe '49.

New Apparatus, by Thomas B. Freas. 7:118-21, Fe '07.

Note on Balancing Oxidation Equations by the Ion-Electron Method, by Jacob Cornog. 41: 419-23, My '41.

Note on Etching with Hydrofluoric Acid, by Nicholas Knight. 5:199, Mr '05.

Note on Removing Carbon from Test Tubes, by Eaton V. Miller. 25:770-2, O '25.

Numerical Problems in Chemistry, by Jessie Caplin. 18:864, De '18.

Opportunities for Safety Education in Chemistry Instruction, by Ray C. Soliday. 38: 623-6, Je '38.

Organic Demonstrations - A Neglected Opportunity, by Ralph E. Dunbar. 56:303-7, Ap '56.

Oxidation - Reduction Demonstrations, by Arthur Haut. 30:361-5, Ap '30.

Paper Chromatography for the Secondary Schools, by John G. Surak and Sister Mary Lucilda, O.S.F. 59:62-8, Ja '59; and 59: 151-4, Fe '59.

Percent of Acetic Acid in Vinegar, by Thomas R. Stout. 14:447-8, My '14.

pH and Hydrogen-Ion Concentration Calculations, by C. J. Schollenberger. 46:632-5, O '46.

Plastics in the Science Education Program, by Harold Hainfeld. 53:519-20, O '53.

Polarization of a Galvanic Cell, by Arthur W. Gray. 2:217-9, O '02.

Preparation of Ammonium Molybdate Solution, by G. T. Franklin. 31:664, Je '31.

Preparation of Salts, by John M. Michener. 25:975-6, De '25.

Problems of Weight Based Upon Chemical Equations, by G. J. Van Buren. 6:402, My '06.

Professor Morley on the Teaching of Chemistry, by Lyman C. Newell. 1:401-10, Ja '01.

Proportionate Lengths of Magnesium for Equivalent Weight Determinations, by E. L. Gunn. 42:476-9, My '42.

Providing Apparatus and Equipment for Teaching High School Chemistry, by Fred W. Moore. 51:629-34, N '51.

Purpose - To Test Ten Samples of Cheap Penny Candy for Solubility, Starch or Flour and Glucose; Also to Compute the Cost of a Pound of the Candy, by C. A. Norris. 14:448, My '14.

Qualitative Analysis for High School Students, by Welker Bechtel and John A. Fisher. 41:647-56, O '41.

Removing Glass Stoppers, by M. Gordon Duvall. 41:225, Mr '41.

Report on New Apparatus Committee, by John C. Packard. 33:206-7, Fe '33.

Repression of Ionization by a Common Ion, by Lester S. Guss. 36:888-9, N '36.

Research for High School Students, by Charles H. Stone. 34:820-2, N '34.

Semi-Micro Qualitative Analysis for High School Students, by Welker Bechtel and John A. Fisher. 42:617-8, O '42.

Silvering of Glass, by Ralph E. Dunbar. 60: 406, My '60.

Simple Experimental Evidence for the Presence of Ions, by Chas. W. D. Parsons. 10:191-202, Mr '10.

Simple Methods of Showing Presence of Nitrogen in Nitrates, Etc., by Oscar R. Flynn. 6:584, O '06.

Simplified Apparatus for the Determination of the Volumetric Composition of Ammonia, by Linus S. Parmelee. 5:458-9, Je '05.

Slide Rule Instruction for Students of High School Chemistry, by Dorr M. Simer. 47: 725-8, N '47.

Solid Reactions, by Lyman J. Wood. 45: 623-43, O '45.

Solution of Problems from Equations, by R. W. Borgeson. 33:756-62, O '33.

Solvent Action of Fruit Acids, by Roy E. Bowman. 14:631, O '14.

Some Comparisons of Various Brands of Soaps, by Willis H. Clark. 15:379-81, My '15.

Some Demonstrations for Beginning Chemistry, by Robert H. Long. 47:6-8, Ja '47.

Some Easy Projects in Chemistry. Project 1, Copper Etching, by W. D. Thompson, 38:450-2, Ap '38; Project 2, Ozone, by William Giegold, 38:514, My '38; Project 3, Glass Lettering, by Margaret Shriver and Edward McLeod, 38: 679, Je '38; Project 4, Silvering a Mirror for the Musical Show, by Kienast Smith, 38: 795-6, O '38; Project 5, Fusible Alloys, by Charles H. Stone and Rhenalda Herring, 38: 897-8, N '38; Project 6, Sugar from Sawdust, by Oliver Edwards, 39:336, Ap '39; and Project 7, Manufacture of Guncotton, by Francis Ingley, 39:597, Je '39.

Some Modern Methods for Teaching Science, by Charles H. Stone. 38:146-62, Fe '38.

Some Notes on Chemical Laboratory Equipment, by R. M. Hughes. 7:751-2, De '07.

Some Notes on Chemistry Projects, by O. E. Underhill. 26:634-7, Je '26.

Some Practical Applications of the Electric Furnace, by Frank G. Taylor. 7:404-5, My '07.

Some Practical Elementary Chemistry, by Fredus N. Peters. 9:133-4, Fe '09.

Some Simple Applications of Energy to Chemical Reactions, by G. T. Franklin. 29: 590-3, Je '29.

Some Simple Electrical Apparatus for Chemistry, by A. E. Parkins. 8:659-61, N '08.

Some Simple Ways of Demonstrating Chemical Principles, by Robert H. Long. 47:409-12, My '47.

Some Supplementary Chemical Experiments, by Charles H. Stone. 34:923-9, De '34.

Some Uses of a Conductivity Cell, by G. T. Franklin. 30:907-9, N '30.

Something New in Chemical Laboratories, by Harry N. Wheaton. 4:138-40, Je '04.

Stamps that Teach Chemistry, by Barbara J. Fulforth. 37:910, N '37.

Stimulating Interest in Chemistry, by D. C. Barrus. 28:196-7, Fe '28.

Stopcock Grease, by Ralph E. Dunbar. 60: 406, My '60.

Student Electrolysis in a Beaker - A New Apparatus, by Walter D. Baker. 6:591-4, O '06.

Student's Notes on a Quantitative Experiment, by Frank Squair. 6:131-2, Fe '06.

Substitutes for Some of the Written Work in Chemistry, by Hattie D. F. Haub. 19:808-12, De '19.

Supersaturation and Crystallization, by G. Ross Robertson. 19:437, My '19.

Suspended Transformations, by Fredus N. Peters. 10:510-2, Je '10.

Teacher, What's Your Answer?, by Charles H. Stone. 36:1025, De '36; 37:215, Fe '37; and 37:272, Mr '37.

Teaching a Ceramics Unit in High School Chemistry, by Robert J. Orr. 54:461-2, Je '54.

Teaching Formulas and Equations by the Use of Laboratory Experiments, by Fred T. Weisbruch. 49:549-55, O '49.

Teaching of the Theory of Electrolytic Dissociation in High School Chemistry, by Wm. H. Brown. 21:457-60, My '21.

Teaching Oxidation and Reduction, by Arthur Haut. 29:962-8, De '29.

Teaching Science to Girls, by Herbert L. Pierce. 27:811-3, N '27.

Teaching the Chemistry of Fundamental Inorganic Chemical Reactions Can Be Fun, by James R. Irving. 48:129-34, Fe '48.

Teaching the Periodic Classification of Elements, by Royce H. LeRoy. 27:793-9, N '27.

Teaching the Synthesis of Water, by Howard H. Hillemann. 35:810-1, N '35.

Teaching Valence by Means of the Electronic Theory, by Saylor C. Cubbage. 38:282-91, My '38.

Teaching Valency, by Lula Gaines Winston. 21:772-4, N '21.

Temperature Controller, by T. S. Huxham. 18:552, Je '18.

Testing the Acidity of Milk, by H. H. Lyon. 6:378-9, My '06.

The Analysis of Air, by J. A. Giffin. 6:137, Fe '06.

The Application of Continued Fractions to the Determination of Empirical Chemical Formulas, by Arthur Porges. 37:598-9, My '37.

The Application of the Electron Theory to the Writing of Chemical Equations, by Walter O. Walker. 23:567-72, Je '23.

The Chemistry Exhibit as a Project Review, by William F. Einbecker. 22:430-6, My '22.

The Construction of Special Slide Rules and Nomographs for the Teacher of General Chemistry, by Lyman Wood. 56:381-92, My '56; and 56:441-52, Je '56.

The Consumer Picks His "Anti-Freeze," by David D. Aptekar. 39:729-32, N '39.

The Cycle of Carbon, by Joseph C. Blucher. 17:121-7, Fe '17.

The Davy Safety Lamp, by Louis T. Masson. 34:437, Ap '34.

The Density of a Solution of Hydrochloric Acid, by F. C. Irwin. 5:443-4, Je '05.

The Dimensions of Rydberg's Constant, by R. F. Trimble, Jr. 60:551-2, O '60.

The Displacement Series - A Demonstrational Experiment, by Charles H. Stone. 38:682-5, Je '38.

The Electron Theory Applied to Valence and the Formation of Compounds, by Walter O. Walker. 28:594-603, Je '28.

The Equipment of a Modern Chemical Laboratory in the Secondary School, by Fred J. Watson. 6:182-6, Mr '06.

The Estimation of Carbon Dioxide in Minerals and Rocks, by Nicholas Knight. 6:676-8, N '06.

The Experimental Basis of Chemical Formulae and the Teaching of the Atomic-Molecular Hypothesis, by Herbert N. McCoy. 8:441-52, Je '08.

The Folklore of Chemistry, by Eugene W. Blank. 46:493-9, Je '46.

The Folklore of Chemistry: A Sequel, by E. W. Blank. 49:392-4, My '49.

The Generation of Hydrogen and Oxygen Under Pressure by Electrolysis, by William E. Neuswanger. 40:261-4, Mr '40.

The Geometry of Atomic Models, by Herbert Bassow. 60:693-705, De '60.

The Handling of Noxious Gases in the High School Laboratory, by Harry Clifford Doane. 3:219-21, O '02.

The Hollywood Chemistry Models, by C. W. Gray. 16:617-21, O '16.

The Home Medicine Cabinet: A Unit in Consumer Chemistry and Health Education, by Martin J. Arvin. 41:512-5, Je '41.

The Hydrogen-Magnesium Ratio Laboratory Exercises, by Robert W. Curtis. 16:250-2, Mr '16.

The Inductive Method for Laying the "Foundations of Analytical Chemistry," by I. Newton Kugelmass. 17:600-2, O '17.

The Per Cent of Oxygen in Air, by John F. Woodhull. 6:762-7, De '06.

The Percentage of Oxygen in Air, by Erle M. Billings. 17:304-6, Ap '17.

The Periodic Library, by Herbert Bassow. 59:527-31, O '59.

The Periodic System and the Structure of Atoms, by D. A. MacInnes. 17:435-42, My '17.

The Photoelectric Colorimeter in General Chemistry, by Sister M. Ignatia. 46:636-7, O '46.

The Preparation of Pale Greenish-White Ferrous Hydroxide, by Harold J. Abrahams and Stephen M. Poppel. 59:371-2, My '59.

The Preparation of Permanent Lantern Slide Records of Crystalline Forms, by Walter O. Walker. 22:473-4, My '22.

The Preparation of Phosphorus, Sodium and Potassium for Laboratory Use, by C. D. Snyder. 3:507-8, Mr '04.

The Preparation of Qualitative "Known" Solutions, by Louis J. Curtman. 11:827-32, De '11.

The Presentation and Importance of Reversible Chemical Reactions, by Max Small. 22: 560-4, Je '22.

The Presentation of the Van Slyke-Neill Manometric Technique to the Second Year College Chemistry Class, by Sheila O'Toole and George E. F. Brewer. 48:269-75, Ap '48.

The Problem of Molecular Models, by Sister M. Ignatia. 51:33-9, Ja '51.

The Project Method in Second Semester High School Chemistry, by Frank B. Wade. 23: 471-6, My '23.

The Purification of Mercury, by Geo. M. Hulett. 1:426-30, Ja '02.

The Qualitative Analysis Scheme and the Periodic Classification, by George A. Scherer. 50:540-4, O '50.

The Settling of Precipitates by Centrifugation, by Walter O. Walker. 22:109-10, Fe '22.

The Slide Rule in Teaching Chemistry, by S. G. Rich. 23:530-1, Je '23.

The Spectroscope in the Elementary Chemical Laboratory, by H. C. Kremers. 22:40-2, Ja '22.

The Theater Party, by J. M. Kurtz. 56: 646-8, N '56.

The Theory of Electrolytic Dissociation, by Louis Kahlenberg. 2:395-400, Ja '03.

The Use of a Stencil in Chemistry Reports, by Edward P. Heether. 35:736-7, O '35.

The Use of Atomic Models in Teaching Chemistry, by W. H. McLain. 31:321-4, Mr '31.

The Use of Elementary Methods in Chemistry, by Wm. E. Fisher. 39:275-7, Mr '39.

The Use of Models in Presenting Elementary Chemistry, by J. A. Campbell. 52:175-82, Mr '52.

The Ventilation of Chemical Laboratories, by F. H. Wiese. 19:461-2, My '19.

The Volumetric Composition of Water Vapor, by George A. Hulett. 5:453-6, Je '05.

The Wisdom of Trying to Teach the Bronsted Nomenclature, by B. S. Hopkins. 39:39-45, Ja '39.

To Utilize Scraps of Platinum, by Nicholas Knight. 7:262-3, Ap '07.

Training Storeroom Assistants, by Robert H. Mitchell. 55:364-7, My '55.

Two Devices to Add Interest to Review Work in Elementary Chemistry, by Agnus Bandel. 15:354-5, Ap '15.

Two New Quantitative Experiments, by Rufus P. Williams. 4:97-8, My '04.

Two Simple and Convenient Gas Generators, by C. E. Linebarger. 1:88-90, Ap '01.

Use of the Bulletin Board in the Chemistry Classroom, by M. C. Hays. 42:173, Fe '42.

Utilization of the Chance Project in Science Teaching, by Frank B. Wade. 20:775-9, De '20.

Utilizing Waste Fat for Soap - A Project for the Chemistry Class. 18:733-4, N '18.

Valence Blocks Visualize High School Chemistry Fundamentals, by A. H. Bryan. 40: 758-60, N '40.

Visual Aids for Teaching Chemical Industrial Processes, by A. A. Himmel. 53:397-9, My '53.

Visualizing Qualitative Chemistry, by C. W. Gray. 16:726-8, N '16.

Vitalizing Chemistry Teaching, by Louis H. Abramowitz. 36:722-8, O '36.

Wash Bottle Valves, by E. W. Gaither. 15: 834, De '15.

Water Is Colorless, by Arthur Furst. 43: 774-6, N '43.

Werner's Solution of the Valence Problem, by Jos. L. Coon. 9:135-42, Fe '09; and 9: 261-6, Mr '09.

What Do We Mean by Supporting Combustion?, by O. L. Brauer. 17:136-7, Fe '17.

What Shall We Teach About Chemical Equilibrium?, by Forrest W. Cobb. 23:861-6, De '23.

Where Shall the Emphasis Be Placed?, by G. T. Franklin. 31:1114, De '31.

Why Not Demonstrate It?, by Robert H. Long. 50:425-9, Je '50.

Wombat & Co., Ink Manufacturers, by Charles H. Stone. 37:704-7, Je '37.

Textbooks and Teaching Aids

A Chemistry Experiment - Supplementary Reading, by Agnus Bandel. 17:646-7, O '17.

A Few Observations in Chemical Spelling, by L. E. Blackman. 36:524-6, My '36.

A New Plan for Supplementary Reading Materials in Chemistry, by Herbert R. Smith. 50:112-4, Fe '50.

A Summary of Periodical Literature Dealing with Teaching Aids and Devices Related to the Teaching of Chemistry, by William Albert Earl Wright. 42:853-9, De '42.

About the Scientific Method, by Sister M. Roswitha. 55:120-2, Fe '55.

Alchemy and Chemistry in Literature, by Eugene W. Blank. 42:550-8, Je '42.

Book-Length Biographies of Chemists - Addenda, by Thomas James Higgins. 48:438-40, Je '48; and 48:650-5, O '48.

Chemistry Books for the High School Library, by James H. Walton. 25:390-4, Ap '25.

Chemistry References for Students and Teachers. 21:477-82, My '21.

Freshman Chemistry in America in 1850, by M. J. McHenry. 34:11-20, Ja '34.

Reference Library for Chemistry, by B. W. Peet. 6:462-8, Je '06.

Reference Work in Chemistry for Secondary Schools, by F. C. Irwin. 6:47-51, Ja '06.

Supplementary Reading in Chemistry, by Herbert R. Smith. 50:420, My '50.

The Departmental Library in a Small College, by Geo. W. Muhleman. 39:854-61, De '39.

The High School Chemistry Library, by Muriel C. Gere, J. J. Gunther, and B. Clifford Hendricks. 29:859-63, N '29.

The High School Library for Chemistry, by J. Bishop Tingle. 1:298-300, N '01.

The Presentation of Atomic Structure to College Freshmen, 1905-1940, by Sister Mary Martinette. 40:808-14, De '40.

The Selection of Books in the Field of Chemistry, by Manning M. Pattillo, Jr. 44: 845-53, De '44.

The Teaching of Chemistry. 26:26-8, Ja '26.

The Text-Book in Elementary Chemistry, by William M'Pherson. 4:1-15, Ap '04.

The Vocabulary of Chemistry, by George W. Muhleman. 47:693-7, N '47.

Why Use Textbooks in Teaching Elementary Chemistry?, by W. G. Bowers. 27:961-8, De '27.

PHYSICS

Career Information

Careers for Women in Physics, by Virginia M. Brigham. 53:13-4, Ja '53.

Physics and Physicists at General Motors Research, by D. L. Fry. 56:341-56, Mr '56.

Physics As a Career, by Charles C. Bidwell. 31:268-72, Mr '31.

Physics As a Career, by George Walter Stewart. 26:355-60, Ap '26.

Clubs

Radio Clubs in High School, by Hallie Turner. 25:574-7, Je '25.

The Physics Club in a Normal School, by L. A. Robinson. 7:461-2, Je '07.

Curriculum

A College Course in Radio, by Sam Snead. 32:570-2, My '32.

A Decision, by J. A. Randall. 12:515-9, Je '12.

A Division of the Subject Matter of Physics Into Two Courses, Elementary and Advanced of One Semester Each, by Clyde Krenerick. 14: 770-7, De '14.

A Letter to Physics Teachers, by F. Dow Smith. 54:224-8, Mr '54.

A New Method in Teaching Physics, by Herschel Newton Scott. 37:976-81, N '37.

A New Move Among Physics Teachers, by C. R. Mann and C. H. Smith. 6:198-202, Mr '06.

A Physics Course for Girls, by W. G. Whitman. 9:146-8, Fe '09.

A Problem and Its Numerical Solution, by W. W. Sleater. 20:612-8, O '20.

A Proposed Definition of Electronics, by Robert Stollberg. 47:258-62, Mr '47.

A Proposed Improvement in Physics Teaching, by Lewis B. Avery. 7:196-203, Mr '07.

A Tentative Reconsideration of Principles Underlying the High School Course in Physics, by Sherwood C. Bain. 46:719-24, N '46.

Adaptation of Physics to Different Types of Pupils, by S. E. Coleman. 12:131-7, Fe '12.

Adaptation of the Course in Physics to the Needs of Girls, by W. G. Whitman. 10:494-8, Je '10.

Adjustment of High School Courses in Physics to Meet the Increased Scope of Elementary Physics, by Gilbert Random. 3:254-9, N '03.

Advocating a Fusion of Physics and Chemistry, by Shailer A. Peterson. 37:449-57, Ap '37.

Algebra and Physics, by A. Greenfield. 42: 571-3, Je '42.

An Endeavor to Contact Objectives With Method in the Teaching of Science, by W. B. Buckham. 36:608-14, Je '36.

An Experiment in the Teaching of Physics, by Eustace Broom. 26:506-9, My '26.

An Experiment in the Teaching of Physics, by H. C. Krenerick. 12:683-7, N '12.

An Ideal Course in High School Physics, by K. E. Guthe. 7:254-61, Ap '07.

An Improved Sequence in Physics, by Elbert Payson Little and Russell Sturgis Bartlett. 40:856-61, De '40.

Comment on Article by J. M. Hughes, by G. W. Stewart. 25:179, Fe '25.

Comment on Dr. Millikan's Article in the February and March Issues, by LeRoy D. Weld. 6:583, O '06.

Consumer Education and Boyle's Law, by W. A. Porter. 38:619-22, Je '38.

Contests in Physics - A Reviver of Interest, by Walter A. Preische. 29:613-4, Je '29.

Curriculum Studies on the Place of Radio in School Science and Industrial Arts, by Earl R. Glenn and L. A. Herr. 26:181-8, Fe '26; 26:253-63, Mr '26; 26:361-71, Ap '26; 26:512-21, My '26; and 26:592-608, Je '26.

Definition of Requirements in Elementary Physics. 9:572-9, Je '09.

Discussion of Professor Millikan's Paper, by A. A. Upham. 9:473-4, My '09.

Discussion of the New Movement Among Physics Teachers, by Edwin H. Hall. 6:628-31, O '06.

Einstein's Theory of Gravitation From the Standpoint of the Teacher of Physics, by Joseph S. Ames. 20:477-81, Je '20.

Elementary Physics in the Schools of the Province of Alberta, by Philo F. Hammond. 19:816-23, De '19.

Exposition, Experiment and Discussion in the Teaching of Elementary Physics, by A. Wilmev Duff. 7:141-7, Fe '07.

Fads and Fancies in Physics Teaching, by N. Henry Black. 24:184-90, Fe '24.

Fads, Facts, and Physics, by Karl F. Oerlein. 38:237-41, Mr '38.

Fifty Years Ago, by Fred R. Miller. 45:663-5, O '45.

Formulas in Physics, by James G. Harlow. 40:149-52, Fe '40.

G.I. Veteran Physics Classes in High School, by L. L. Caldwell and J. H. Wood. 46:818-20, De '46.

Heat and Kinetic Theory From the Standpoint of Scientific Method, by Winston Gottschalk. 38:1030-2, De '38.

High School Physics, by M. W. Welch. 43: 665-6, O '43.

High School Physics for General Education, by Kenneth E. Vordenberg. 41:549-52, Je '41.

High School Physics - Yea or No!, by James B. Davis. 47:627-39, O '47.

How Should Modern Physics be Handled in a General Physics Course?, by J. Richard Weaver. 52:539-45, O '52.

How to Care for Individual Differences in a High School Physics Class, by C. H. Watson. 23:218-22, Mr '23.

How to Make Physics More Inspiring to Pupils, by Ralph S. Minor. 8:24-6, Ja '08.

How to Teach Physics, by R. B. Abbott. 37: 143-6, Fe '37.

How Will the War Effect High School Science?, by Charles E. Dull. 19:555-7, Je '19.

Is the Present Order of Presenting the Divisions of Physics the Best One?, by C. A. Smith. 14:563-7, O '14.

Junior College Students As Critics of Teaching Technique, by Vergil Claybourne Lohr. 24:975-9, De '24.

Making High School Physics Real, by F. F. Good. 13:338-43, Ap '13.

Matter and Method in Physics Teaching, by R. H. Cornish. 2:327-33, De '02; and 3:387-95, Ja '03.

Measurement in Science, by Kenneth E. Anderson. 48:429-32, Je '48.

Moral Values and Physics, by Ora Walters. 46:480-4, My '46.

More Interesting and Practical Mechanics for the High School, by J. M. Jameson. 7:345-51, My '07.

Objectives of a Proposed Course of Study in Physics for Senior High Schools, by G. C. Muthersbaugh. 29:943-54, De '29.

Physics and Modern Warfare, by James W. Moody. 43:616-9, O '43.

Physics as a Factor in Forming Character, by Charles M. Brunson. 10:593-9, O '10.

Physics as a Pedagogical Subject, by J. Harry Clo. 9:151-5, Fe '09.

Physics as a Pedagogical Subject, by J. Harry Clo. 8:403-7, My '08.

Physics by an Individualized Method, by Ralph C. Hollis. 32:324-7, Mr '32.

Physics for Men In or About to Enter Military Service, by Lester I. Bockstahler. 44: 303-7, Ap '44.

Physics From the Girl's Point of View, by Adele Cazin. 13:333-7, Ap '13.

Physics in General Education, by Louis M. Heil. 40:27-36, Ja '40.

Physics in Secondary Schools, by David C. Caldwell. 8:367-8, My '08.

Physics in Secondary Schools, by Carl I. Ingersol. 1:288-92, N '01.

Physics in Sweden, by John Lundberg. 22: 890-2, De '22.

Physics in the High School, by R. A. Burtnett. 18:109-11, Fe '18.

Physics in the High Schools of Tomorrow, by G. W. Stewart. 17:684-95, N '17.

Physics in the Secondary School, by T. Quincy Browne. 7:730-2, De '07.

Physics in the Secondary School, by Irving O. Palmer. 3:251-4, N '03.

Physics for All - An Important Thought for Our Nation, by Willis Swales, Jr. 57:220-2, Mr '57.

Physics for the Pre-Dental Student, by E. W. Skinner. 31:431-8, Ap '31.

Physics for the Pre-Medic Student, by W. C. Hawthorne. 28:575-80, Je '28.

Physics Teaching in High Schools, by Darwin L. Bardwell. 10:503-6, Je '10.

Planning Your High School Physics Courses, by Philip G. Johnson. 49:204-16, Mr '49.

Practical Physics in Private Schools for Girls, by Elizabeth Duval Littell. 12:673-7, N '12.

Present Inadequacies and Suggested Remedies in the Teaching of Physics, by A. W. Hurd. 30:539-46, My '30.

Present Tendencies in the Teaching of Elementary Physics, by R. A. Millikan. 6:119-24, Fe '06; and 6:187-93, Mr '06.

Project Science, Progressive, by J. C. Moore. 16:686-90, N '16.

Pupil Grouping in Physics to Approximate Individualization, by Mae Elizabeth Harveson. 33:741-5, O '33.

Raising the Masses Is a Problem in Physics, by Thomas D. Cope. 42:817-21, De '42.

Random Suggestions From St. Louis, by Charles H. Slater. 9:855-7, De '09.

Relating High School Physics to the Environment, by Wm. H. Brown. 35:721-3, O '35.

Reply to Paper by Mr. Whitman, Vol. IX, No. 2 (Feb.), and by Mr. Spaulding, Vol. VIII, No. 8, by Cora Q. Walker. 10:206-9, Mr '10.

Report of Committee on College Entrance Requirements, by Frederick E. Sears. 32: 202-3, Fe '32.

Shop Physics, by Arthur Houston. 42:467-72, My '42.

Should the Content of High School Physics be Changed?, by Burton E. Smith. 11:604-9, O '11.

Socializing the Study of Electricity as a Part of the High School Course in Physics, by Marshall Coots. 19:532-6, Je '19.

Some Aspects of the Cultural Value of Physics Teaching, by C. F. Hagenow. 22:33-9, Ja '22.

Some Broader Educational Aspects of Physics Problem Solving, by Sherwood C. Bain. 48: 538-40, O '48.

Some Characteristics of the Philosophy of Physics, by Wm. S. Franklin. 28:764-70, O '28.

Some Comments on Physics Teaching, by Herbert Brownell. 25:801-6, N '25.

Some Methods for the Improvement of Instruction in Physics, by James P. Davis. 37:925-32, N '37.

Some Observations on the Teaching of Physics, by A. H. Sage. 3:67-80, My '03.

Some Questions and Comments - The Psychology of High School Physics, by Paul F. Brandwein. 43:777-80, N '43.

Some Questions Concerning the Place of Subject Matter in the Teaching of Physics, by Fred J. Mulder. 32:272-81, Mr '32.

Some Special Phases of Physics Teaching, by D. L. Bardwell. 4:443-5, Fe '04.

Some Suggestions for Unifying High School Physics Around the Concept of Energy, by Kenneth H. Summerer. 57:536-40, O '57.

Symposium on the Purpose and Organization of Physics Teaching in Secondary Schools. 8: 717-28, De '08; 9:1-7, Ja '09; 9:162-72, Fe '09; and 9:291-2, Mr '09.

Teaching Physics as We Use It, by O. A. Nelson. 47:829-35, De '47.

Teaching Physics Effectively, by Elbert C. Weaver. 44:402-11, My '44.

The Addition of Physical Quantities - A Suggestion to Teachers of Elementary Physics, by Will C. Baker. 19:693-7, N '19.

The Aim in High School Physics Teaching, by E. E. Burns. 6:652-6, N '06.

The Aims and Tendencies in Physics Teaching, by C. R. Mann. 6:723-30, De '06.

The American Physics Teacher's Opportunity, by Edwin H. Hall. 2:57-69, Ap '02.

The Automobile in Physics, by H. C. Krenerick. 20:197-9, Mr '20.

The Bearing of Recent Research on the Teaching of Elementary Physics, by Henry Crew. 21:136-42, Fe '21.

The Beginner's Approach to Physics, by F. F. Good. 14:42-6, Ja '14.

The Case Against High School Physics, by Paul DeH. Hurd. 53:439-49, Je '53.

The College Entrance Examination Board's Syllabus in Chemistry, by M. D. Sohon. 5: 297-9, Ap '05.

The Correlation of High School and College Physics, by Robert A. Millikan. 9:466-73, My '09.

The "Cultural" Course in General Physics for Colleges, by A. A. Knowlton. 32:364-70, Ap '32.

The Culture Aim in Physics Teaching, by Frank B. Spaulding. 10:14-7, Ja '10.

The Educational Value of Physics, by Wilbur A. Fiske. 1:455-63, Fe '02.

The Elimination of Waste in the Teaching of High School Science, by Robert A. Millikan. 16:193-209, Mr '16.

The Enrichment of the High School Course in Physics, by John F. Woodhull. 5:223-9, Ap '05.

The Fabric of Our Physical Knowledge, by Rogers D. Rusk. 18:157-63, Fe '18.

The First Lessons in Physics, by E. Percival Lewis. 8:269-76, Ap '08.

The Goal of a Physics Teacher, by Arthur L. Foley. 34:158-71, Fe '34.

The Historical Method in Elementary Physics, by J. R. P. French. 17:829-37, De '17.

The Joint Committee on Physics, by J. A. Randall. 13:501-7, Je '13.

The Musician in the High School Physics Course, by Creed Grumbles. 41:798-9, N '41.

The New Movement Among Physics Teachers. 6: 696-702, N '06; 6:787-94, De '06; 7:328-34, Ap '07; and 8:522-5, Je '08.

The New Physics, by C. L. Vestal. 19:66-74, Ja '19.

The New Physics and the Secondary School, by E. C. Kemble. 31:871-2, O '31.

The Newtonian World-Machine, by Ralph Mansfield. 43:32-45, Ja '43.

The Opportunity Now Before Teachers of Physics, by J. M. Jameson. 12:195-205, Mr '12; 12:327-35, Ap '12; and 12:503-14, Je '12.

The Overview of the Unit in Physics, by Clifford Holley. 32:648-52, Je '32.

The Physics Teacher Faces His Problems, by J. T. Peters. 41:559-67, Je '41.

The Plight of College Physics, by John G. Frayne. 28:345-52, Ap '28.

The Plight of High School Physics. (Series; See Miscellaneous Section.)

The Present Status of High School Physics, by W. D. Henderson. 8:347-59, My '08.

The Principles of Physics - A Criticism, by H. M. Stockder. 41:449-51, My '41.

The Project as a Teaching Unit in High School Physics, by B. Clifford Hendricks. 21:163-72, Fe '21.

The Project Plan in the Teaching of Physics, by J. P. Drake. 24:936-8, De '24.

The Psychology of High School Physics, by Thomas Morse Barger. 43:303-8, Ap '43.

The Realization of the Main Objectives of Secondary Education Through the Teaching of Physics, by John K. Skinner. 22:320-3, Ap '22.

The Relation of Physics to Medicine, by Winfield S. Hall. 3:433-5, Fe '03.

The Relation of Problem Work to the New Physics Movement, by William G. Fuller. 10: 506-8, Je '10.

The Role of Physics and Chemistry in Biology and Medicine, by George Crile. 33:12-25, Ja '33.

The Role of Physics In Premedical Training, by C. C. Reed. 39:707-15, N '39.

The Role of Physics in the Emerging High School Curriculum, by George Greisen Mallinson. 55:211-6, Mr '55.

The Romance of Research, by Mason E. Hufford. 35:273-84, Mr '35.

The Socialization of High School Physics, by R. B. DeLano. 34:522-3, My '34.

The Spirit and Method of Research in Undergraduate Courses, by S. R. Williams. 29: 720-7, O '29.

The Study of Heat in a One-Year Course in Physics, by Albert B. Crowe. 3:332-7, De '03.

The Study of Physics, by E. L. Nichols. 6: 268-70, Ap '06.

The Teacher's Conception of Physics, by G. W. Stewart. 14:495-503, Je '14.

The Teaching of Physics, by Thomas M. Balliet. 10:694-6, N '10.

The Teaching of Physics, by A. A. Bless. 28:483-8, My '28.

The Teaching of Physics, by H. N. Chute. 6: 255-61, Ap '06; and 6:360-6, My '06.

The Teaching of Physics, by the Educational Committee of the American Physical Society. 27:819-26, N '27.

The Teaching of Physics, by C. R. Fountain. 29:627-30, Je '29.

The Teaching of Physics in English Schools, by Spencer R. Humby. 31:737-45, Je '31.

The Teaching of the Scientific Attitude by Means of Selected Topics in Physics, by the Physics Syllabus Committee. 41:740-6, N '41.

The Two Year Vocational Course in Electricity at the Englewood Chicago High School, by Walter R. Ahrens. 14:392-6, My '14.

The Unit Method of Instruction as Applied to the Teaching of Physics, by R. S. Howard. 27:844-54, N '27.

The Use and Abuse of the Library in the Teaching of Physics, by Thomas E. Doubt. 15:757-62, De '15.

The Use of British Units in the Teaching of Mechanics, by the Educational Committee of the American Physical Society. 27:353-61, Ap '27.

To What Extent Shall Our Present Teaching of Physics be Guided by Vocational Work?, by Philo F. Hammond. 13:758-64, De '13.

What Belongs in a High School Chemistry Course? 19:167-72, Fe '19.

What Industry Expects a Student to Get From a High School Physics Course, by T. Lee, Jr. 46:425-32, My '46.

What Is a Physicist?, by Richard M. Sutton. 47:326, Ap '47.

What Knowledge (of Physics) is of Most Worth?, by Frank B. Spaulding. 8:674-9, N '08.

Why is High School Physics a Failure?, by Kenneth Hartley. 23:357-60, Ap '23.

Why Study Physics?, by Sister M. John Preising. 44:864-6, De '44.

Engineering Physics

Developments in Teaching Physics to Engineers at Yale, by W. W. Watson. 60:262-6, Ap '60.

Some Aspects of Technical Education With Special Reference to the Teaching of Physics, by Howard M. Raymond. 5:15-22, Ja '05.

The Application of Engineering and Science in Shipbuilding, by George D. Roalfe. 20: 801-13, De '20.

The Preliminary Education of the Engineer, by John Perry. 2:264-72, N '02.

Trend in Engineering Education, by A. A. Potter. 34:58-64, Ja '34.

Evaluation

A Comparison of Some Tests Given in High School Physics, by Vergil C. Lohr. 27:74-85, Ja '27.

A Group System of Examining, by T. D. Phillips. 24:27-8, Ja '24.

A High School Boy's Efficiency Score Sheet, by Willis E. Tower. 17:531-2, Je '17.

A Most Effective Method of Discouraging Good Teaching of Physics in Secondary Schools, by P. M. Dysart. 11:493, Je '11.

A Time Saver in Tests, by Joseph A. McGee. 42:668-70, O '42.

A True-False Test, by John M. Michener. 22: 175, Fe '22.

Achievement Test in Physics at the University of Kentucky, by M. N. States. 30:1058-60, De '30.

An Evaluation of Standard Tests and Suggested Uses in Improving Physics Training, by H. L. Camp. 23:441-6, My '23.

An Open Book Test, by A. P. Andrews. 11: 834-7, De '11.

Completion Tests in Physics, by Edward L. Thorndike. 22:637-47, O '22.

Failures in Physics at the College Entrance Examination Board - The Causes and the Remedies, by Sidney Aylmer-Small. 14:205-10, Mr '14.

Open Book Tests, by A. P. Andrews. 12:341-3, My '12.

Physics - Mid-Year, by W. J. Reimer. 25: 992-6, De '25.

Preliminary Intelligence Testing in the Department of Physics, University of Chicago, by Harvey B. Lemon. 20:226-31, Mr '20.

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Requirement or Recommendation?, by C. R. Mann. 10:264-5, Mr '10.

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Laboratory Activities

A Laboratory Experiment on Ohm's Law Adapted to the Teaching of Scientific Method, by Hyman Ruchlis. 47:222-4, Mr '47.

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Physical Phenomena Versus Abstractions, by S. Leroy Brown. 14:124-7, Fe '14.

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The Laboratory, by the Physics Department of West Technical High School in Cleveland, Ohio. 33:519-23, My '33.

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Mathematics in Physics

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Research Reports

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Teachers

A Course in Electrical Engineering for Teachers of Physics in Secondary Schools, by George A. Cowen. 7:125-6, Fe '07.

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A Momentum Balance. 12:137-40, Fe '12.

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A New Form of Frequency Meter, by N. F. Smith. 16:500, Je '16.

A New Laws of Motion Apparatus, by Harold K. Schilling. 34:34-8, Ja '34.

A New Lecture Experiment. The Barometer, by Will C. Baker. 8:32-3, Ja '08.

A New Machine for Illustrating the Laws of Uniformly Accelerated Motion, by W. H. Hawkes. 1:202-9, Se '01.

A New Means of Attacking Nonparallel Force Problems, by H. E. Brown. 21:529-34, Je '21.

A New Mercurial Barometer of Unique Design, by E. S. Russell. 27:631-3, Je '27.

A New Method for the Measurement of the Wave Length of Light with a Course Grating, by Will C. Baker. 16:733-5, N '16.

A New Method of Exploring Magnetic Potential and Force Fields and Its Application in the Development of the Potential Concept, by Reinhard A. Wetzel. 13:220-4, Mr '13.

A New Method of Rating Tuning Forks, by W. H. Farr. 20:144-6, Fe '20.

A New School Chronograph, and the Determination of "G", by Harrison H. Brown. 8:387-91, My '08.

A New Straight-Vision Prism for the Projection of Spectra, by Joh Koenigsberger. 10: 589, O '10.

A New Surface Tension, by Oscar L. Starr. 34:511-3, My '34.

A New Technique for Solving Heat-Exchange Problems, by Faith Lee Fitch. 38:800-1, O '38.

A New Torquemeter, by G. A. Peple and F. L. Robeson. 29:526-8, My '29.

A Note on Apparatus for Studying Rotational Forces, by Paul E. Klopsteg. 28:50, Ja '28.

A Note on the Rotation of Axes, by Ralph Mansfield. 41:378-9, Ap '41.

A Note on the Teaching of Boyle's Law, by W. C. Hawthorne. 23:154, Fe '23.

A Note on the Usage of Scientific Terms, by Cecil B. Read. 39:495, My '39.

A Note Regarding Lecture Room Stop Watch, by Edward B. Cooper. 39:661, O '39.

A Novel Meterless Light Meter, by George Edgar Bradley. 59:612-3, N '59.

A Novel Plate Developing Tank, by W. A. Porter. 41:423-4, My '41.

A Parallactic Illusion, by H. Lynn Bloxom. 36:752-3, O '36.

A Parallel-Plate Interferometer, by R. William Shaw. 31:992-4, N '31.

A Peculiar Action of the Radiometer, by C. F. Adams. 6:60-1, Ja '06.

A Photoelectric Sorting and Counting Device, by Edw. B. Cooper. 40:628-30, O '40.

A Physics Display Case, by J. W. Moelk. 36: 592-4, Je '36.

A Plan for Teaching the "Principle of Work" According to the Psychological Order, by Charles H. Watson. 21:428-36, My '21.

A Power Test for Physics Pupils, by Willis E. Tower. 19:19, Ja '19.

A Practical Lesson in Physics, by E. K. McAlister. 10:697-8, N '10.

A Pressure Demonstration, by Joseph A. Mack. 51:635-6, N '51.

A Pressure Equalizer for Air or Gas, by N. F. Smith. 14:518-9, Je '14.

A Pressure-Volume Relationship Demonstration, by L. A. Kirst. 48:604, N '48.

A Project for the Photographers, by Karl F. Oerlein. 31:857, O '31.

A Project in Electricity for High School Physics, by Hiram W. Edwards. 20:459-61, My '20.

A Project in Girls' Physics, by W. A. Tippie. 21:425-7, My '21.

A Project in High School Physics, by Donald E. Butler. 38:496-8, My '38.

A Projectile Experiment, by Oscar L. Starr. 33:956-8, De '33.

A Projection Galvanometer, by Paul Rood. 32:116, Ja '32.

A Proof of the Centrifugal Force Formula, by R. L. Carroll. 44:262-4, Mr '44.

A Pyrometer for Laboratory Use, by J. B. Kremer. 14:47-51, Ja '14.

A Quantitative Test of the Conservation of Angular Momentum, by John Mead Adams. 32: 893-5, N '32.

A Rapid Method of Gas Standardization, by E. M. Cunningham. 17:524-5, Je '17.

A Relaxation Oscillator, by Harald C. Jensen. 59:680-1, De '59.

A Resistance Experiment for the High School Class, by Geo. P. Unseld. 31:387, Ap '31.

A Revised Explanation of the Action of the Siphon, by Albert E. Hennings. 12:397-8, My '12.

A Roof Truss for the Laboratory, by George E. Thompson. 17:824-5, De '17.

A Rotational Inertia Apparatus of New Design, by W. L. Kennon. 28:940-5, De '28.

A Sensitive Demonstration Galvanometer for the Science Classroom, by Lawrence J. Delaney. 58:61-4, Ja '58.

A Sensitive Galvanometer for Thermoelectric Work, by C. C. Kiplinger. 19:737-41, N '19.

A Sensitive Thermometer, by Wilhelm Segerblom. 9:298, Mr '09.

A Shadow Method of Measuring the Index of Refraction, by A. A. Knowlton. 19:732-3, N '19.

A Short Foucault Pendulum, by L. S. Welty and L. D. Strong. 28:255-63, Mr '28.

A Short Laboratory Course in Radioactivity, by James L. Clifford. 19:605-11, O '19.

A Shutter Timer Employing the Stroboscope, by G. E. Bradley. 52:624-5, N '52.

A Simple and Efficient Boyle's Law and Charles' Law Apparatus, by J. Garrett Kemp. 17:825-6, De '17.

A Simple and Efficient Wireless Telephone Receiver, by D. G. Veguist. 24:381-4, Ap '24.

A Simple Apparatus for Determining the Acceleration of a Freely Falling Body, by W. M. Parker. 12:562-3, O '12.

A Simple Apparatus for Parallel Forces, by DeForrest Ross. 6:777-8, De '06.

A Simple Barometer, by C. C. Kiplinger. 14: 568-70, O '14.

A Simple But Instructive Physics Experiment, by Harvey A. Zinszer. 29:141, Fe '29.

A Simple Conductometer, by John F. Bonnell. 8:473, Je '08.

A Simple Demonstrating Fire-Sprinkler, by Theodore Cohen. 15:77-8, Ja '15.

A Simple Demonstration Hydraulic Ram, by Frank Hawthorne. 49:272, Ap '49.

A Simple Demonstration Tube for Exhibiting the Mercury Hammer, Glow by Mercury Friction, and the Vaporization of Mercury at Reduced Pressure, by Charles T. Knipp. 17:442-3, My '17.

A Simple Device for Demonstrating the Action of the Photo-Electric Cell, by Herbert S. Lein. 32:431-3, Ap '32.

A Simple Device to Illustrate the Path of Projectiles, by John W. Scoville. 12:194, Mr '12.

A Simple Electric Motor for Every Member of the Class, by Walter A. Thurber. 41:848-51, De '41.

A Simple Experiment on the Cooling of Air by Expansion, by Albert B. Porter. 5:250-1, Ap '05.

A Simple Extensimeter, by H. N. Chute. 3: 157-8, Je '04.

A Simple Fall Apparatus, by A. H. Cooper. 18:857-9, De '18.

A Simple Form of Frequency Meter, by J. M. Kuehne. 10:24-5, Ja '10.

A Simple Form of Polariscope, by Frederick H. Getman. 7:484-5, Je '07.

A Simple Form of the Wilson Cloud Chamber for Projecting Alpha Tracks, by N. Henry Black. 37:1029-33, De '37.

A Simple Gas Meter for Use with the Junker Calorimeter and for Testing Service Meters, by C. W. Waggoner. 15:571-6, O '15.

A Simple Geiger Counter Project, by George Edgar Bradley. 56:439-40, Je '56.

A Simple High Dispersion Spectrometer, by Roy D. Black. 40:860-72, De '40.

A Simple Home Made Ammeter, by Dale Kelly. 59:132, Fe '59.

A Simple Induction Experiment with the Electric Whirl, by Herbert W. Harmon. 10:550, Je '10.

A Simple Magnetizing Device, by Clark Lay. 41:377, Ap '41.

A Simple Means of Adjusting the Cross-Bar for a Laboratory-Table Rack, by C. M. Brunson. 6:669, N '06.

A Simple Method for Measuring the Elongation in Determining Young's Modulus, by N. F. Smith. 3:27, Ap '03.

A Simple Method for Showing $a = v^2/r$ for Circular Motion, by L. T. Jones. 15:141, Fe '15.

A Simple Method of Determining the Absolute Dilatation of Mercury, by Arthur L. Foley. 6:598-601, O '06.

A Simple Method of Determining the Index of Refraction of Light From Water Into Air, by George B. Masslick. 5:226-7, Ap '05.

A Simple Method of Measuring the Earth's Magnetic Field, by Herman D. Stearns. 2: 527-8, Mr '03.

A Simple Reflecting Galvanometer, by J. M. Arthur. 11:544-5, Je '11.

A Simple Resistance Box, by Arthur W. Gray. 5:188-91, Mr '05.

A Simple Resonance Spring, by Thomas D. Phillips. 33:551, My '33.

A Simple Spark Point Counter for Demonstrating the Range of Alpha Particles, by George E. Bradley. 59:740-1, De '59.

A Simple Specific Gravity Bottle for Gases, by Arthur W. Gray. 1:480-2, Fe '02.

A Simple Step-Up and Step-Down Apparatus, by DeForrest Ross. 5:551-3, O '05.

A Simple Vapor Pressure Apparatus, by E. J. Rendtorff. 9:149-50, Fe '09.

A Simple Volumenometer, by H. Wigley. 4: 451-3, Fe '04.

A Simplified Free Fall Apparatus Using 60-Cycle A.C. as Timer, by J. M. Arthur. 33: 523, My '33.

A Simplified Method for Determining the Approximate Relative Thermal Conductivity of Gases, by Aurlocolus C. Herald, Jr. 60: 10-4, Ja '60.

A Simplified Method for the Determination of the Wave Length of Light, by Luis Alvarez. 32:89-91, Ja '32.

A Simplified Theory for the Determination of Linear or Angular Acceleration, by R. L. Edwards. 28:304-5, Mr '28.

A Single Formula for the Concave and Convex Lenses Takes Place of Four Others, by A. V. Pershing. 34:929-31, De '34.

A Specific Gravity Tube, by Howard H. Hillemann. 36:283-4, Mr '36.

A Spectrometer, by John Le May. 2:32-4, Mr '02.

A Striking Experiment, by Morris Wistar Wood. 31:1098-9, De '31.

A Stroboscopic Method of Measuring High Motor Speeds, by W. H. Farr. 21:525-7, Je '21.

A Student Apparatus to Illustrate Diffusion of Gases, by William Lloyd Evans and Charles R. Parkinson. 14:40-1, Ja '14.

A Student's Approach to Mechanics, by Percy F. Benedict. 49:691-702, De '49.

A Study in Efficiency, by Ernest W. Ponzer. 10:579-81, O '10.

A Study of Alternating Current Frequency, by G. K. Schoepfle. 46:861-4, De '46.

A Study of Some Diffraction Phenomena, by C. W. Batdorf. 30:1073-6, De '30.

A Substitute for Lampblack, by Floyd R. Watson. 9:677, O '09.

A Suggestion for Presenting the Idea of Weight Exerted at the Center of Gravity, by Henry S. Curtis. 7:496-7, Je '07.

A Suggestion for Teaching the Absolute Zero. 20:361-2, Ap '20.

A Switchboard for Electrical Testing, by W. H. Farr. 19:537-42, Je '19.

A Teaching Aid for Kinetic Molecular Theory, by Robert H. Kernohan. 46:530-2, Je '46.

A Thermoscope and Its Uses, by E. J. Rendtorff. 9:860-3, De '09; 10:26-9, Ja '10; and 10:118-25, Fe '10.

A 3,000-Volt Lead Plate Shop-Made Storage Battery - Its Construction and Charging Characteristics, by C. T. Knipp and R. J. Ruedy. 22:575-80, Je '22.

A Tumbler Galvanometer, by E. C. Woodruff. 2:284-6, N '02.

A Unique Demonstration of Boyle's Law, by Albert E. Hennings. 13:226-31, Mr '13.

A Unique Modification of Helmholtz's Siren Experiment, by Frank Van De Water. 31:994-5, N '31.

A Unit on the Study of Specific Gravity of Liquids, by Jacob W. Moelk. 35:374-6, Ap '35.

A Useful Pendulum and a Simple Wireless Method for the Velocity of Sound, by Roy W. Kelly. 14:306-11, Ap '14.

A Useful Type of Air Thermometer, by E. J. Rendtorff. 8:684-6, N '08.

A Vibrator for Producing Standing Waves in a String, II, by Harald C. Jensen. 57:473-4, Je '57.

A Visitor's Laboratory of Physics, by Wm. S. Franklin. 27:707-9, O '27.

A Wall Form of Bending Apparatus, by C. L. Vestal. 11:413-5, My '11.

A Water Barometer, by John C. Packard. 15: 480-1, Je '15.

A Water Pressure Demonstration, by Homer W. LeSourd. 46:304, Ap '46.

A Work Sheet for Mirrors and Lenses, by C. Harrison Dwight. 42:627-30, O '42.

A Working Model of a Steam Heating Plant, by John C. Mayfield. 32:1018-20, De '32.

Absolute Angular Measurement, by K. L. Yudowitch. 50:522, O '50.

Absolute Temperature, by K. E. Guthe. 9: 865-6, De '09.

Accelerated Motion Apparatus, by H. Clyde Krenerick. 48:449-52, Je '48.

Acceleration Apparatus, by Roy C. Andrews. 17:334-5, Ap '17.

Acoustic Attraction and Repulsion, by C. C. Kiplinger. 18:346-9, Ap '18.

Adaptation of the Demonstration Laboratory to the High School, by Carl A. Benz. 40: 726, N '40.

Adapting Instruction in Alternating Currents to High School Classes, by Elmer E. Burns. 15:308-11, Ap '15.

Address, With Experiments, Upon Sound Waves: Their Meaning, Registration, and Analysis, by Dayton C. Miller. 11:599-603, O '11.

Aeronautical Instruments Projects, by Walter B. Weber. 46:43-6, Ja '46.

Again, "What Makes the Siphon Work?", by W. M. Bennett. 8:231, Mr '08.

Air Compressor for Small Laboratories, by Harry Gilbert and Walter Gilbert. 29: 1002-4, De '29.

Airplane Performance, by Robert H. Kernohan. 42:480-3, My '42.

Alternating Current Motors in High School Physics, by Joseph A. Mack. 49:39-47, Ja '49.

An Acceleration Apparatus, by L. E. Akeley. 9:478-80, My '09.

An Adjustable Diffraction Grating, by R. William Shaw. 30:1052-4, De '30.

An Aerodynamic Paradox, by Edwin H. Hall. 14:686-7, N '14.

An Aid to the Study of Optical Phenomena, by A. J. Ginsberg. 34:38, Ja '34.

An Annotated Bibliography of Contributions to SCHOOL SCIENCE AND MATHEMATICS Describing Ingenious and Home Made Physics Apparatus, by George W. Haupt. 29:763-9, O '29.

An Apparatus for Both Boyle's and Charles' Law, by C. E. Linebarger. 12:370-6, My '12.

An Apparatus for Demonstrating the Fundamentals of Radio, by Paul E. Klopsteg. 29: 477-86, My '29.

An Apparatus for Deriving Laws of Pendulums, by Ellison L. Ross. 7:760-2, De '07.

An Apparatus for Determining the Relation Between Pressure and Boiling Point, by N. F. Smith. 2:339-40, De '02.

An Apparatus for Establishing Archimedes Principle, by George George. 3:21-2, Ap '03.

An Apparatus for Illustrating Beats, by William C. Shaw. 41:281-3, Mr '41.

An Apparatus for Illustrating Liquid Pressure, by A. R. Hagar. 3:408-9, Je '04.

An Apparatus for Illustrating the Equality of Expansion of Different Gases, by C. F. Adams. 5:456-7, Je '05.

An Apparatus for Plotting Magnetic Fields of Force, by E. J. Rendtorff. 8:735, De '08.

An Apparatus for Producing a Non-Luminous Candle Flame, by Harold J. Abrahams, Howard Friedman, and Stephen Rosenzweig. 60:320-2, Ap '60.

An Apparatus for Studying Centrifugal Force, by Loyd E. Hunt. 27:589-93, Je '27.

An Apparatus for Visually Demonstrating Musical Scales and the Physical Basis of Harmony, by L. E. Dodd. 28:9-23, Je '28.

An Apparatus for the Pendulum Problem, by H. N. Chute. 3:22-5, Ap '03.

An Apparatus for the Study of the Gas Law, by Henry A. Erikson. 11:610-3, O '11.

An Application of Certain Laws of Physics, by Dorothy Johansen. 32:692, Je '32.

An Application of the Parabola, by Hugh M. Gilmore, Jr. 50:527-8, O '50.

An Easily Constructed Heliostat, by Arthur W. Gray. 3:162-7, Je '03.

An Easy Does It, by Rebecca E. Andrews, To Show the Heating Effect of an Electric Circuit in Series and Parallel Circuits, 56: 46-7, Ja '56; Transformation of Energy, 56: 316, Ap '56; Gears from the Junkyard, 56: 428, Je '56; The Use of Shadows to Show Demonstrations, 57:313-4, Ap '57; Three Demonstrations in Sound, 59:183-4, Mr '59; and Demonstration on Standing Waves, 59:744, De '59.

An Easy Method for Finding the Mechanical Advantage of Pulley Systems, by R. C. Colwell. 26:264-6, Mr '26.

An Easy Method of Illustrating the Hydrostatic Paradox, by Chas. H. Smith. 8:49, Ja '08.

An Efficient and Inexpensive Electrophorus, by Arthur L. Foley. 36:714-6, O '36.

An Electrical Convenience, by H. C. Trimble. 14:133, Fe '14.

An Electrical Experiment, by Elmer E. Burns. 12:146, Fe '12.

An Electrical Resonance Outfit, by Vernon Shippe. 40:545-7, Je '40.

An Electrically Animated Panel as Tool for the Teaching of Absorption Spectroscopy, by Dorothy A. Rennell, Patricia M. Gilpin, Christine J. Dasho, and George E. F. Brewer. 51:219-25, Mr '51.

An Electro Chronograph for Laboratories, by John B. Leake. 34:600-2, Je '34.

An Electronic Bridge for Inductance and Capacitance Measurements, by Norman R. Dilley. 55:430-5, Je '55.

An Elementary Device for Showing Projectile Motion, by Julius Sumner Miller. 50:575-6, O '50.

An Elementary Diffraction Method for Measurement of Wave Length, by J. K. Robertson. 21:377-9, Ap '21.

An Elementary Optical Bench, by H. W. Farwell. 16:488-93, Je '16.

An Elementary Study of Diffraction Patterns, by John B. Dutcher. 33:604-10, Je '33.

An Elementary Study of Physical Units, by John Waddell. 19:114-8, Fe '19.

An Elongated Cartesian Diver, by F. Joseph Lorz. 32:271, Mr '32.

An Erroneous Experiment in Gaseous Diffusion, by Edward Condon. 23:415-6, My '23.

An Experiment Both Interesting and Instructive. 13:298-300, Ap '13.

An Experiment in Elementary Optics, by Vinton Phenix. 38:847-9, N '38.

An Experiment in Light, by A. L. Cavanagh. 7:669, N '07.

An Experiment in Magnetism, by R. M. Holmes. 17:336-40, Ap '17.

An Experiment in Resolution of Forces, by E. C. Woodruff. 2:523-6, Mr '03.

An Experiment in Resonance, by E. C. Woodruff. 3:215-8, O '03.

An Experiment on Automobile Stopping Distances, by M. J. Irland. 46:267-71, Mr '46.

An Experiment on Friction, by Albert B. Porter. 5:110-4, Fe '05.

An Experiment on Slipping Friction, by C. E. Linebarger. 3:92-3, Ja '03.

An Experiment on Torques, by M. H. Trytten. 34:823-4, N '34.

An Experiment on the Banking of Curves, by Walter V. Burg. 45:307-9, Ap '45.

An Experiment on the Expansion of Water, by Edward W. Davidson. 14:312-4, Ap '14.

An Experiment on the Law of Inertia, by Walter W. Burg. 43:864, De '43.

An Experiment on the Magnifying Power of a Simple Lens, by R. A. Millikan. 6:450-1, Je '06.

An Experiment on the Theory of Magnetism, by Joseph A. McGee. 31:497, Ap '31.

An Experiment Showing the Relationship Between Pressure and Boiling Point, by C. E. Linebarger. 2:156-8, My '02.

An Experiment to Determine the Apparent Coefficient of Expansion of a Liquid, by F. A. Osborn. 1:152-4, My '01.

An Experiment to Determine the Driving Torque of an Automobile, by H. C. Krenerick. 21:134-5, Fe '21.

An Experiment to Determine the Index of Refraction of Water, by S. H. Anderson. 10:413-5, My '10.

An Experiment Upon Cooling Through Change of State, by Robert A. Millikan. 6:772-5, De '06.

An Experiment with Air Flow and Drag, by John B. Leake. 36:383-5, Ap '36.

An Experiment with Polarized Light, by Robert Wilson and William Kunerth. 34: 613-7, Je '34.

An Experiment with Roget's Spiral, by C. F. Adams. 1:258-9, O '01.

An Illustration of Forces and Acceleration, by W. C. Hawthorne. 6:780, De '06.

An Important Optical Experiment, by E. J. Rendtorff. 10:416-8, My '10.

An Improved Elementary Method for the Determination of the Heat of Vaporization, by Byron E. Cohn. 29:878-80, N '29.

An Improved Form of "Steam Trap," by Willis E. Tower. 5:200-1, Mr '05.

An Improved Gas Laws Apparatus, by W. A. Porter. 40:470-1, My '40.

An Improved Resonance Model, by Will C. Baker. 16:629-30, O '16.

An Improved Spherometer, by Ronald L. Ives. 46:51-6, Ja '46.

An Improvement to the Earth Inductor, by A. L. Fitch. 28:164-7, Fe '28.

An Improvised Spinthariscope, by C. C. Kiplinger. 19:593-4, O '19.

An Impulse Apparatus for the Second Law of Motion, by John Mead Adams. 14:520-1, Je '14.

An "Inderometer," by J. Stewart Gibson. 1:150-2, My '01.

An Induction Apparatus, by C. F. Adams. 13: 232-6, Mr '13.

An Inexpensive Atwood Machine, by Philo F. Hammond. 12:498-502, Je '12.

An Inexpensive Impact Apparatus, by J. S. Miller. 40:155, Fe '40.

An Inexpensive Wireless Outfit, by H. Clyde Krenerick. 13:301-2, Ap '13.

An Ingenious Method of Telling the Direction of Flow of an Electric Current, by Jessie Caplin. 16:115, Fe '16.

An Interesting Dilemma: Why Exactly 1/2?, by Julius Sumner Miller. 56:610, N '56.

An Interesting Experiment Involving Archimedes Principle, by W. N. Mumper. 9:297-8, Mr '09.

An Interesting Experiment on Buoyancy, by R. C. Hummell. 16:440-2, My '16.

An Interesting Experiment on Interference of Light Waves, by James A. Coss. 15:534, Je '15.

An Object for Determining the Focal Length of Lenses, by S. R. Williams. 52:471-2, Je '52.

An Old Experiment in New Dress, by Noel C. Little. 33:373-7, Ap '33.

Another Convection Experiment, by Homer W. LeSourd. 31:454, Ap '31.

Another Fuse Device, by H. L. Chase. 17: 120, Fe '17.

Another Note on Cooling by Expansion. 7: 704, N '07.

Apparatus for Concurring Forces, by Walter D. Bean. 8:48, Ja '08.

Apparatus for Concurring Forces, by Irving W. Horne. 11:272, Mr '11.

Apparatus for Demonstrating Laws of Liquid Pressure, by H. Clyde Krenerick. 6:681-2, N '06.

Apparatus for Demonstrating the Hydraulic Press, by Harold H. Metcalf. 25:709-10, O '25.

Apparatus for Determination of the Thermal Coefficient of Expansion of Gases, by W. R. Goddard. 18:605-7, O '18.

Apparatus for Determining the Refraction of Water, by P. G. Agnew. 6:29, Ja '06.

Apparatus for Dip-Needle Demonstration, by Willard R. Pyle. 7:466-7, Je '07.

Apparatus for Drawing Harmonic Curves, by Walter P. White. 4:503-6, Mr '04.

Apparatus for Showing the Radioactivity of Well and Spring Waters, by Blancha L. Daniels. 8:126-8, Fe '08.

Apparatus for the Determination of the Coefficient of Linear Expansion of a Metal Tube, by E. T. Bucknell. 7:493-5, Je '07.

Apparatus to Illustrate Boyle's Law, by H. L. Curtis. 5:187, Mr '05.

Apparatus to Illustrate Earth-Induction and the Principle of the Simple Dynamo and Motor, by Henry S. Curtis. 9:763-4, N '09.

Apparatus You May Need, by E. L. Harrington. 9:353-4, Ap '09.

Apparent Coefficient of Expansion of Air. 9:858, De '09.

Apparent Speed of a Moving Object Seen Through a Field Glass, by Conrad K. Rizer. 43:552-3, Je '43.

Application of Electricity and Sound to Radio, by J. R. Harrison. 40:570-2, Je '40.

Archimedes Moves the Earth, by Aaron Buchman. 52:428, Je '52.

Archimedes Principle, by J. C. Packard. 29: 969-70, De '29.

Are Atoms Divisible?, by Arthur A. Skeels. 5:610-7, N '05.

Assembly Programs from Class Work, by M. E. Herriott. 25:150-2, Fe '25.

Atomic Theory in Baseball Terms, by Irving Langmin. 20:548-9, Je '20.

Automobile Ignition Assembly, by F. W. Moody. 40:463-4, My '40.

Autosuggestion in Teaching, by Ervin S. Ferry. 24:517-20, My '24.

Background and Foreground of General Science, by Wm. T. Skilling. 29:734-7, O '29; 29: 986-9, De '29; 30:46-9, Ja '30; 31:297-300, Mr '31; and 31:444-7, Ap '31.

Bernaulli's Principle, by William S. Franklin. 11:7-14, Ja '11.

Boiling Point and Vapor Pressure, by E. E. Scott. 42:285, Mr '42.

Boyle's Law, by C. D. Carpenter. 6:566-8, O '06.

Boyle's Law and the Adiabatic Effect, by John C. Shedd. 19:529-32, Je '19.

Boyle's Law Apparatus, by Ralph C. Hartsough. 18:349, Ap '18.

Boyle's Law Apparatus, by E. J. Rendtorff. 11:16-7, Ja '11.

Boyle's Law Apparatus for the Lecture Table, by C. R. Herrick. 19:134-5, Fe '19.

Boyle's Law, by Means of a Capillary Tube, by C. H. Perrine. 5:48-50, Ja '05.

Bridges as Illustrative Material on the Parallelogram of Forces, by Harvey N. Davis. 15:185-97, Mr '15.

Brief Notes on Kinetic Energy, by Julius Sumner Miller. 51:730, De '51.

Brownian Movements with Low Magnification, by W. M. Cady. 28:196, Fe '28.

Buoyancy Apparatus, by Clarence B. Hill. 29:179, Fe '29.

Calorimetry Made Concrete, by F. M. Gregg. 9:332-4, Mr '09.

Capacitor Discharge and Energy, by J. O. Perrine. 57:453-61, Je '57.

Care, Use and Repair of Laboratory Equipment, by H. M. Sullivan. 53:259-63, Ap '53.

Cartesian Divers Designed by Pupils, by Haym Kruglak. 38:141-2, Fe '38.

Casting Fusible Metal for Teaching Physical Change, by Harold J. Abrahams. 40:835-9, De '40.

Cathode-Ray Oscillograph Demonstrations in High School Physics, by E. B. Chrisman and Richard Neal. 41:528-9, Je '41.

Ceiling Supports, by John C. Packard. 17: 228, Mr '17.

Celluloid Riders for Sonometers, by D. C. Barrus. 27:519, My '27.

Center of Mass - A Simple Automobile Problem, by Wm. S. Franklin. 26:948-51, De '26.

Centrifugal Force, by F. M. Denton. 28:527, My '28.

Centrifugal Force, by Two Boys from Arlington High School, Arlington, Massachusetts. 10:701-3, N '10.

Centripetal or Centrifugal Force?, by Charles A. Compton. 58:672-3, De '58.

Changes of Length and Hysteresis Losses Accompanying Magnetization, by E. P. Lewis. 14:570-2, O '14.

Charge and Discharge of Condensers Illustrated by Means of an Easily Constructed Mechanical Model, by Charles F. Bowen. 12: 486-9, Je '12.

Charles' Law Apparatus, by F. R. Gorton. 16:439-40, My '16.

Charles' Law Apparatus, by C. W. Gray. 15: 710-2, N '15.

Charles' Law Apparatus, by G. E. Ripley. 23:447-9, My '23.

Check Your Ammeter?, by Joseph A. Mack. 48: 253-8, Ap '48.

Check Your Voltmeter - A High School Laboratory Experiment, by Joseph A. Mack. 43: 755-7, N '43.

Circle Diagrams for A-C Circuit Analysis, by Lauren G. Woodby. 55:731-6, De '55.

Circuit Practice Board, by E. B. Chrisman. 45:541-2, Je '45.

Coefficient of Linear Expansion of Mercury, by Chas. H. Slater. 6:18-9, Ja '06.

Cold Light in the Home, by Leroy D. Johnson. 41:123-4, Fe '41.

Color Balancing by Simultaneous Linear Equations, by Clyde B. Anderson and Lester H. Serier. 57:201-7, Mr '57.

Combination Newcomb Engine and Hydraulic Elevator, by Benjamin H. Stasch. 44:523-6, Je '44.

Combination of a Shaded Pole and Lenz's Law Demonstration Apparatus, by Delmer Kimberling. 36:850-3, N '36.

Combined Infra-Red, Ultra-Violet Lamps, by Roy D. Black. 36:1016-7, De '36.

Common Evidences of Air Pressure, by Stephen S. Visher. 20:608-11, O '20.

Composition and Resolution of Forces, by B. L. Steele. 9:27-9, Ja '09.

Composition of Motions, by Albert B. Porter. 5:45-8, Ja '05.

Composition of Motions, by B. L. Steele. 8: 683, N '08.

Compound Harmonic Motion Apparatus, by Cyril Ruhlmann. 12:767-71, De '12.

Concerning the Sand at the Seashore, by Julius Sumner Miller. 56:321, Ap '56.

Conservation Laws and Atomic Physics, by J. K. Robertson. 43:712-28, N '43.

Construction of a Simple Electrolytic Interrupter, by George F. Worts. 10:638, O '10.

Convection, by Homer W. LeSourd. 31:304, Mr '31.

Converse of the Principle of Archimedes, by F. C. VanDyck. 9:665-6, O '09.

Cooling by Evaporation, by H. D. Hatch. 36: 754, O '36.

Cooling by Expansion and Warming by Compression, by Charles Emerson Peet. 7:263, Ap '07.

Cooling Through Change of State, by N. F. Smith. 16:437-8, My '16.

Correcting Watch Time by Watch Vibrations, by E. M. Tingley. 44:521-2, Je '44.

Creative Activities in Nucleonics, by Sheldon L. Cram. 51:603-10, N '51.

Critical Phenomena, by Saverio Zuffanti. 41:489-90, My '41.

Cross-Word Puzzle for Physics Terms, by Louis Hammerley. 25:524, My '25.

Cutting Circular Disks, by Harald C. Jensen. 58:712-3, De '58.

Demonstrating Convection Currents, by Otto R. Ariens. 34:862-4, N '34.

Demonstrating How Talking Pictures Are Made and Shown, Using Ordinary Visual Equipment, by W. I. Fenner. 39:339-41, Ap '39.

Demonstrating the Cycles of an Alternating Current, by F. W. Moody. 40:333, Ap '40.

Demonstrating the Index of Refraction of Water, by Leo E. Wiljamaa. 51:514, O '51.

Demonstrating the Principle of the Rectifier, by F. W. Moody. 40:109, Fe '40.

Demonstrating the Relation Between Kinetic Energy and Velocity, by H. Lynn Bloxom. 38: 518-20, My '38.

Demonstration Equipment - Electric Wiring, by Nathan Boortz and Shailer Peterson. 49:15-8, Ja '49.

Demonstration Experiments in Physics, by Wallace A. Hilton. 51:234-6, Mr '51.

Demonstration of Color Apparatus, by W. R. Brown. 30:572, My '30.

Demonstration of Convection Currents, by Robert H. Long. 32:426-7, Ap '32.

Demonstration of the Evolution and Theory of the Vacuum Tube by Hydraulic Analogy, by F. Joseph Lorz. 36:465-7, My '36.

Demonstration of the Magnetic Field of a Dynamo and the Effect of Armature Current on this Field, by F. A. Clark. 13:655-63, N '13.

Demonstration of the Relation of Radiant Energy and Heat, by W. P. White. 3:26-7, Ap '03.

Demonstration Oscilloscope from T.V. Set, by Harold Sossen. 52:483-4, Je '52.

Demonstration "Some Laboratory Uses of Compressed Air and the Amplifier," by Homer W. LeSourd. 38:206, Fe '38.

Demonstration to Show the Operation of an Automobile Thermostat, by Rebecca E. Andrews. 57:71-2, Ja '57.

Demonstrations in Electricity, by R. C. Colwell and M. C. Holmes. 28:835-7, N '28.

Demonstrations in High School Physics, by R. C. Grubbs. 48:199-201, Mr '48.

Demonstrations of the Alternations of A. C. Current, by Paul E. Wilson. 34:968, De '34.

Density Plummet Thermometers, by C. E. Lloyd. 45:470-1, My '45.

Density Plummets, by C. E. Lloyd. 44:785-8, De '44.

Deriving Moment of Inertia Formulas Without Calculus, by Earl C. Rex. 46:240-2, Mr '46.

Details of an Experiment in Composition of Forces, by W. C. Hawthorne. 2:26-8, Mr '02.

Determination of the Focal Length of a Diverging Lens, by Franklin B. Wells. 53: 535-6, O '53.

Determination of the Refracting Angle of a Prism and the Angle of Minimum Deviation, by Charles H. Skinner. 11:119-22, Fe '11.

Determining Young's Modulus Dynamically with the Foucault Pendulum, by R. L. Edwards. 31: 350-1, Mr '31.

Developing Demonstrations in Physics with Simple Equipment, by Floyd I. Leib. 56: 137-43, Fe '56.

Device for Testing Electric Wiring, by Howard M. Nichols. 10:639, O '10.

Devices Useful for Demonstration Purposes, by E. L. Nichols. 1:77-85, Ap '01.

Diagrams for Solving Physics Problems, by John W. Scoville. 15:763-5, De '15.

Diagrams for Specific Heat and Change of State Problems, by H. F. Cope. 45:326-8, Ap '45.

Diffraction of Sound by a Grating of Variable Interval, by Frances Savage. 30:505-9, My '30.

Diffusion Demonstrations, by Joseph A. Mack. 48:592-4, N '48.

Direct Current for Your Laboratory, by Roland O. Sprecher. 42:860-4, De '42.

Direct Reading Boyle's Law Apparatus, by H. C. Beltz. 19:795-6, De '19.

Discussion of "Cooling by Expansion," by H. E. Howe. 7:588-9, O '07.

Do You Have a Service Station Handy?, by E. Wayne Gross. 53:555-6, O '53.

Does the Ether Drift?, by D. H. Palmer. 30: 400-5, Ap '30.

Double Mercury Contact for Clock Pendulum, by Paul E. Martin. 26:721-2, O '26.

Dramatic Incidents in the Evolution of Physics, by B. Clifford Hendricks. 52:439-43, Je '52.

Dummy Dry Cells - Device for Saving Batteries in the Electrical Laboratory, by G. H. Mouw. 35:140, Fe '35.

Duplicate Tone Apparatus, by E. H. Schroer. 36:886-8, N '36.

Dynamic Measurement of Force, by N. H. Williams. 1:368-71, De '01.

Easy Atomic Drawings, by Philip B. Sharpe. 40:867-8, De '40.

Easy Method of Exhibiting Interference Fringes with Ordinary High School Apparatus, by A. V. Pershing. 34:841-2, N '34.

Economy in the Physics Laboratory, by Clyde E. Riley. 35:576, Je '35.

Eddy Currents Demonstration, by F. W. Moody. 42:23-4, Ja '42.

Effect of Varying "G" on the Period of Vibration of a Pendulum, by Charles H. Slater. 9:681, O '09.

Efficiency and Relative Cost of Gas and Electric Heating Appliances, by H. Clyde Krenerick. 49:97-8, Fe '49.

Efficiency Tests of the New Cenco-Hyvac Oil Vacuum Pumps, by Chas. T. Knipp and C. S. Palmer. 21:617-20, O '21.

Eggs and Physics - A Class Experiment, by John Satterly. 59:219-27, Mr '59; and 59: 273-80, Ap '59.

Einstein's Proof, by Walter H. Carnahan. 50:104-6, Fe '50.

Electric Charges on a Charged Rubber Band, by J. J. Coop. 35:983, De '35.

Electrical and Mechanical Oscillator, A Physical and Mathematical Comparison, by J. O. Perrine. 56:621-40, N '56.

Electrical Convection Currents, by T. Sidney Elston. 29:812-7, N '29.

Electrical Method of Measuring Heat of Vaporization, by H. C. Beltz. 16:814-5, De '16.

Electromagnetic Induction, by C. W. Batdorf. 35:864-6, N '35.

Energy and War, by Homer W. LeSourd. 44: 431-4, My '44.

Energy Forms and Changes, by H. R. Fisher. 34:700-1, O '34.

Energy Relations of Dynamo and Motor, by H. C. Cheston. 22:313-4, Ap '22.

English and Metric Units in Laboratory Work, by H. Clyde Krenerick. 51:646-8, N '51.

Espy's Nepheloscope, by Cleveland Abbe. 7: 586-7, O '07.

Estimation of Weights and Distances for Physics Students, by Wm. G. Fuller. 11: 250-1, Mr '11.

Examples of Inexactness in an Exact Science, by John P. Hoyt. 41:627-8, O '41.

Experiences to Explain the Siphon, by Walter A. Thurber. 46:500-4, Je '46.

Experiment: The Boiling Point of Water, by C. J. Peters. 27:642-3, Je '27.

Experiment to Show the Physics of a Hammer Drawing a Nail, by H. L. F. Norse. 13: 416-8, My '13.

Experiments, by Edwin H. Hall. 14:684-5, N '14.

Experiments for the Science Class, by Julius Sumner Miller. 50:4, Ja '50.

Experiments in Fluid Pressure, by H. C. Krenerick. 12:13-4, Ja '12.

Experiments in Microscopy: Demonstrating Brownian Movement and Cottrell Precipitation, by Eugene W. Blank. 32:281-3, Mr '32.

Experiments in Physics-Heat, by Gordon B. Wilkes. 30:570-1, My '30.

Experiments with a Mirror of Variable Curvature, by W. V. Burg. 38:968-71, De '38.

Experiments with the School Electrical Machine, by Oliver P. Watts. 1:308-13, N '01.

Experiments with Vibrating Strings, by N. F. Smith. 23:75-6, Ja '23.

Explanation of the Two-Cycle Gasoline Engine, by Rebecca E. Andrews. 60:544-6, O '60.

Extension of the Experiment on the Harmonic Motion of a Loaded Spring, by Julius Sumner Miller. 57:262, Ap '57.

Fabrication of Electrical Diagrams, by Ronald L. Ives. 46:438-46, My '46.

Fallacious Ideas, by J. H. Cloud. 30:191-4, Fe '30.

Finding Candle Power with a Sightmeter, by William A. Porter. 39:618-22, O '39.

Fish Story, by Orville F. Warning. 53: 656-9, N '53.

Fluids in Motion, by Adren Aitken. 30: 1046-51, De '30.

Foot Apparatus, by F. C. VanDyck. 8:34-6, Ja '08.

Force and Torque, by Henry Crew. 9:323-34, Ap '09.

Force, Work and Power - Their Relation. Note on Relation of Work to Heat Added, by S. A. Garlick. 19:727-31, N '19.

Forces as an Energy Factor, by A. H. Sage. 5:638-40, N '05.

Forces on Struts Determined by Analysis, by Earl C. Rex. 41:15-7, Ja '41.

Formula for Centrifugal Force, by Roswell Parish. 18:43, Ja '18.

Free Fall Machine; Or Acceleration Apparatus for Measuring "G": And the Laws of Falling Bodies, by I. Thornton Osmond. 20: 602-7, O '20.

From a Tattered Old Notebook, by James B. Davis. 48:471-2, Je '48.

Gas and Electric Furnaces for Physics Laboratory Work, by H. C. Beltz. 13:577-83, O '13.

Geissler Tubes from Electric Light Bulbs, by James Bailey. 10:639-40, O '10.

Generalization of the Pulfrich Refractometer, by Moody L. Coffman. 51:567-73, O '51.

Gibson's Acceleration Apparatus, by Dell Gibson. 12:11-2, Ja '12.

Graham's Law of Gaseous Diffusion, by William H. Chapin. 17:503-7, Je '17.

Graphical Analysis Used to Teach Motion, by J. A. Douglas. 38:135-40, Fe '38.

Graphical Methods and Lines of Force, by R. C. Colwell. 25:412-5, Ap '25.

Graphical Representation of the Error in the Mirror Formula, by James S. Stevens. 14: 338-9, Ap '14.

Gravitational Forces and the Pendulum, by Martin H. Patrick. 48:39-42, Ja '48.

Heat Production in a Current-Carrying Wire, by Fred W. Schueler. 48:341-9, My '48.

Heating by Eddy Currents, by William Hakkarinen. 40:46, Ja '40.

Heating Effect, by Gustav Wittig. 14:519, Je '14.

Help Geometry Prove Itself, by Donald A. Williamson. 58:10-2, Ja '58.

Helping the Teacher of Physics, by Geo. W. Gorrell. 29:64, Ja '29.

Heterogeneous Ideas for Interesting Discussion, by Julius Sumner Miller. 57:277-8, Ap '57; 57:338, My '57; and 57:426, Je '57.

High School Physics and Mathematics as Applied to Aircraft Engine Mechanics, by Alvin Harrison. 53:297-305, Ap '53.

Home Made Apparatus, by A. C. Norris. 1: 436, Ja '02.

Home Made Apparatus for Demonstrating Pascal's Principle and Pressure of Liquids, by Chas. F. Valentine. 27:413-4, Ap '27.

Home-Made Linear Expansion Apparatus, by R. O. Austin. 6:779, De '06.

Home Made Storage Batteries for Practical Use, by H. R. Brush. 5:268-72, Ap '05.

Hooke's Law and Jolly Balance Springs, by R. B. Abbott. 27:609-11, Je '27.

Hooke's Law and Young's Modulus Apparatus, by G. E. Ripley. 22:769-71, N '22.

How a Physics Class Solved a Problem, by R. E. Showers. 41:673-6, O '41.

How a Swing is Worked - A Lecture Experiment, by Frederick A. Osborn. 17:101-3, Fe '17.

How Can We Show Parallax?, by Marvin J. Pryor. 59:350-3, My '59.

How Fast Sound?, by Anna E. Holman. 45: 661-2, O '45.

How High Can a Man Jump on the Moon?, by Julius S. Miller. 51:264, Ap '51.

How High School Physics Students Can Measure the Speed of Bullets, by M. J. W. Phillips. 43:803-11, De '43.

How the Line-Wires Light Lamps - A Beginner's Lesson in Electricity, by F. F. Good. 16:9-13, Ja '16.

How to Make that Enlarging Frame, by W. A. Porter. 41:515-6, Je '41.

Humidity Indoors, by John C. Packard. 22: 224-5, Mr '22.

Hydraulic Analogy to the Simple Electric Cell, by G. B. Blair. 17:522-4, Je '17.

I Like Action in Physics Demonstrations, by Richard C. Hitchcock. 41:832-9, De '41.

Image Positions from Lenses, by J. S. Stevens. 13:574-6, O '13.

Improved Gas Law Apparatus, by John Noehl. 59:514-7, O '59.

Improved Overflow Can, by Clarence B. Hill. 29:272, Mr '29.

Improvised Science Apparatus, by Alfred Powers. 21:380-1, Ap '21.

Impulse Electroscope, by C. C. Kiplinger. 15:577-80, O '15.

In a Sound Studio: An Auditorium Program by the Physics Class, by B. S. Whitmore. 37: 273-80, Mr '37.

In Improved Overflow Can, by William A. Porter. 37:935-6, N '37.

In Which Direction Does an Electric Current Flow?, by L. E. McAllister. 31:1112-4, De '31.

Induced Current Demonstration, by F. W. Moody. 45:229-30, Mr '45.

Induction Motor Demonstration, by F. W. Moody. 42:489-90, My '42.

Inexpensive Apparatus for Illustrating the Hydrostatic Paradox, by F. R. Gorton. 9:26, Ja '09.

Inexpensive Vacuum Tube Experiment, by Joseph A. Mack. 41:869-74, De '41.

Influence of Pressure on the Boiling Point, by J. A. Giffin. 5:55-7, Ja '05.

Informal Demonstration of New Apparatus, by N. Henry Black. 30:78, Ja '30.

Introduction to "Lift," by Harold Z. Harris. 45:792-7, De '45.

Inverse-Squares, by F. Joseph Lorz. 33: 892-4, N '33.

Investigations in Series and Parallel Circuit Combinations, by Barry MacKichan. 60: 646-52, N '60.

Is Your Radio Dial Calibrated Correctly?, by Martin H. Patrick. 48:619-20, N '48.

Laboratory Method of Making a Self-Starting Siphon, by Waller Bonner. 18:460, My '18.

Laboratory Uses of Thermos Bottles, by Raymond B. Abbott. 17:11-4, Ja '17.

Laws of Falling Bodies. 7:403, My '07.

Laws of Falling Bodies, by E. J. Rendtorff. 8:228-30, Mr '08.

Learning the Electric Motor, by Joseph Singerman. 32:810-2, O '32.

Lecture Experiments for Teaching Electrical Measurements for Direct and Alternating Currents, by John F. Woodhull. 8:173-7, Mr '08.

Lecture Room Stop Watch, by F. H. Wade. 39: 337-9, Ap '39.

Linear and Angular Velocities as Vector Quantities, by N. F. Smith. 28:145-7, Fe '28.

Liquid Air, by Bernard Jaffe. 26:168-72, Fe '26.

Liquid Force, by Gordon E. Highriter. 31: 232, Fe '31.

Lissajous Figures, by Wallace A. Hilton. 57:7-8, Ja '57.

Location of Virtual Images by the Parallax Method, by Philo F. Hammond. 21:80-1, Ja '21.

Low Cost 60 Cycle Resonance Demonstration Apparatus, by Charles W. Brauer, Jr. 57: 642, N '57.

"Magdeburg Hemispheres" Out of Suction Cups, by Julius S. Miller. 51:104, Fe '51.

Magnetic Field of a Current-Bearing Conductor; Electrolytic Conduction, by Julius Sumner Miller. 50:644, N '50.

Magnetic Fields on Photographic Paper, by A. C. Daugherty. 37:548, My '37.

Magnetic Phantoms, by Jesse H. Garner. 2: 103-5, Ap '02.

Magnetic Release for Falling Body, by A. Haven Smith. 16:435, My '16.

Magnetizing and Demagnetizing with Alternating Currents, by Walter A. Thurber. 43:824-7, De '43.

Making the Laboratory the Basis of High School Science, by H. H. Radcliffe. 25:749-52, O '25.

Mass and Inertia, by Henry Crew. 9:864-5, De '09.

Mathematical Analysis in Elementary Physics, by Brother Albertus Smith. 50:461-3, Je '50.

Mathematics in Elementary Photography, by Robert A. Atkins. 55:175-8, Mr '55.

Measurement of a Magnetic Field, by Julius Sumner Miller. 57:200, Mr '57.

Measurement of Surface Tension, by Edwin H. Hall. 9:759-62, N '09.

Measurement of the Horizontal Component of the Earth's Magnetic Field by a Simplified Absolute Method, by Lindley Pyle. 17:306-8, Ap '17.

Measurement of Wave Length by High School Pupils, by C. F. Adams. 4:509-11, Mr '04.

Measuring the Distance from Mirror to Scale on the D'Arsonval Galvanometer, by Julian L. Thompson. 34:786, O '34.

Measuring the Frequency of an A.C. Lighting Circuit by Means of a Neon Glow Lamp, by J. Irvin Swigart. 31:971-3, N '31.

Measuring the Index of Refraction of a Glass Prism, by J. P. Naylor. 10:698-700, N '10.

Measuring the Millionth of a Centigrade Degree to Test Modern Scientific Theories, by Frank T. Gucker, Jr. 29:923-31, De '29.

Measuring the Performance of an Automobile, by N. Henry Black. 31:533-41, My '31.

Measuring to a Millionth of an Inch With a Pocket Hankerchief, by George Woolsey. 38: 280-1, Mr '38.

Mechanical Devices for Drawing Lissajou's Figures, by R. C. Colwell. 36:1005-6, De '36.

Method for Showing Total Internal Reflection, by A. Haven Smith. 16:630-1, O '16.

Method of Accomplishing Laboratory Work in a Single Period, by H. Clyde Krenerick. 36: 515-23, My '36.

Method of Demonstrating "Beats," by F. W. Epley. 6:96, Fe '06.

Method of Illustrating the Principles of Archimedes, by W. Crabb. 9:86, Ja '09.

Micro-Wave Radio Beams, by W. L. Barrow. 40: 282-3, Mr '40.

Mnemonics, by W. Roscoe Fletcher. 40:279-80, Mr '40.

Model for Introducing Motion Problems, by Ethel L. Grove, Charles E. Scott, and Ewart Grove. 51:123-4, Fe '51.

Model "Structural Steel" in the Laboratory, by H. Lawton Chase. 16:147, Fe '16.

Modern Methods of Producing High Vacuum and Various Phenomena of Electronic Emission in High Vacuum, by E. L. Manning. 30:70-7, Ja '30.

Mounting a Demonstration Galvanometer, by F. R. Gorton. 7:401-2, My '07.

New Apparatus and Material for the Teaching of Physics, by A. H. Gould. 39:519-23, Je '39.

New Apparatus for Falling Bodies, by A. A. Upham. 15:210-2, Mr '15.

New Boyle's Law Apparatus, by G. E. Ripley. 22:396-8, Ap '22.

New Linear Expansion Apparatus, by George A. Cowen. 9:765-9, N '09.

New Methods with the Impulse Balance, by John Mead Adams. 22:771-6, N '22.

New Total Internal Reflection Demonstration, by J. J. Mahoney. 35:577, Je '35.

Newton's Third Law, by M. W. Welch. 51:738-40, De '51.

Non-Priority Physics Equipment, by Richard C. Hitchcock. 42:719-22, N '42.

Note on a Device to Illustrate the Path of a Projectile, by J. H. C. Bagby. 13:224-5, Mr '13.

Note on Electromagnetic Induction, by Arthur B. Hussey. 43:628-9, O '43.

Note on Filling a Barometer Tube, by N. F. Smith. 5:459-60, Je '05.

Note on Spherical Mirrors, by Edwin H. Hall. 5:281, Ap '05.

Note on the Gridiron Pendulum, by C. F. Adams. 7:355, My '07.

Note on the "Nodon Valve," by Willis E. Tower. 8:140-1, Fe '08.

Notes on the Upkeep of a Lead-Acid Battery Unit, by Sanford C. Gladden. 29:497-501, My '29.

Notes on Vacuum Tube Electroscope, by Arthur B. Hussey. 43:437, My '43.

Observations on a Kundt's Tube, by Julius Sumner Miller. 56:593, O '56.

Observations on Burned-Out Lamp Filaments, by Julius Sumner Miller. 52:49, Ja '52.

Observations on Factors Determining Success in Physics, by Archer W. Hurd. 25:121-31, Fe '25; and 25:259-66, Mr '25.

Observations on the Freezing of Water in Vacuo and the Uncertainty Principle, by Julius Sumner Miller and Margaret B. Lehman. 58:147, Fe '58.

Ohm's Law and Internal Resistance of Cells, by George Antonoff. 45:713-6, N '45.

Ohm's Law Through the Looking Glass, by Frieda A. Stahl. 60:715-9, De '60.

On Making Sound Waves Visible, by H. Lynn Bloxom. 27:800-4, N '27.

On What Makes the Sipon Work, by Winthrop E. Fiske. 8:33, Fe '33.

On Work and Energy, by James B. Davis. 49: 391, My '49.

110 Volt Alternating Current for Bells, by L. A. Robinson. 8:560, O '08.

One Way of Teaching Acceleration, by Clarence W. Lombard. 45:668-71, O '45.

Optics by the Wave Method, by A. L. Cavanagh. 7:293-300, Ap '07.

Optics Notes, by K. L. Yudowitch. 49:421-2, My '49.

Oscillating Current Demonstration, by F. W. Moody. 41:644-6, O '41.

Ostwald's Method of Obtaining X in $X = R\frac{a}{1-a}$. 5:466-8, Je '05.

Paradox of Forces, by Julius Sumner Miller. 50:730, De '50.

Parallel-Series Combinations, by Harald C. Jensen. 57:728-9, De '57.

Parallelogram of Forces Apparatus, by Fred A. Holtz. 5:191-2, Mr '05.

Particle Detectors Used in High-Energy Physics, by Edward C. Calhoon and Glen W. Watson. 60:17-24, Ja '60.

Paths of Projectiles, by Robert C. Yates. 58:390-3, My '58.

Photographic Time and Aperture Corrections at Finite Working Distances, by Ronald L. Ives. 55:56-65, Ja '55.

Physics Demonstrations on the Commencement Program, by Wilbur J. MacNeil. 35:911-4, De '35.

Physics Department Electric System, by H. C. Krenerick. 8:679-81, N '08.

Physics Laboratory Practice Amelioration, by Ralph C. Hartsough. 17:15-6, Ja '17.

Physics Suggestions, by W. E. Wing. 12:428-30, My '12.

Pictorial Preface for Simple Harmonic Motion, by Moody L. Coffman. 59:196-7, Mr '59.

Plates as Tops, by John Satterly. 59:685, De '59.

Polarization of the Voltaic Cell. 9:859, De '09.

Portable Units for Physics Demonstration, by F. W. Moody. 36:974-80, De '36.

Positions of Reference, by F. C. VanDyck. 9:22-4, Ja '09.

Positive and Anode Are Not Synonymous Terms, by Olin D. Parsons. 16:436-7, My '16.

Power For War, by C. M. Ripley. 45:1-20, Ja '45.

Practical Equations of Moments, by F. C. VanDyck. 7:481-3, Je '07.

Practical Experiments in Radio with the Laboratory Vacuum Tube Unit, by Sol D. Prensky. 33:832-8, N '33.

Presenting Mean Effective Current in Elementary Physics Classes, by Harry C. Wolfson. 58:692-4, De '58.

Pressure Experiments, by Julius Sumner Miller. 50:124, Fe '50.

Problems in Divided Circuits, by Wm. F. Rigge. 26:297-300, Mr '26.

Production of Standing Waves in a Wire Carrying an Alternating Current, by David L. Cook. 29:754-5, O '29.

Program: The Story of Radio, by F. Joseph Lorz. 35:513-25, My '35.

Projectiles in Miniature, by A. P. Heflin. 45:501-14, Je '45.

Projection Demonstrations to Accompany Lectures on Wave Motion, by Will C. Baker. 9: 156-62, Fe '09.

Putting the "Simple" in Simple Harmonic Motion, by Kenneth L. Yudowitch. 45:183-5, Fe '47.

Radar as a Research Instrument, by Catharine Bergen. 49:754-9, De '49.

Radar Coordinate Data for Antiaircraft Gunlaying, by Lauren G. Woodby. 50:687-90, De '50.

Radioactivity in the High School, by W. F. Hoyt. 16:818-21, De '16.

Radium, by Luther S. H. Gable. 44:545-8, Je '44.

Radium and the Ray-Gentor, by H. H. Barker. 26:974-80, De '26.

Reaction Timer, by T. J. Kuemmerlein. 36: 577-9, Je '36.

Reflection of Light, by Arthur E. Cebelius. 38:260-3, Mr '38.

Refraction and Mirrors, by Hollis D. Hatch. 40:716-9, N '40.

Relativity for High School, by Glen D. Vanatta. 58:463-6, Je '58.

Relativity in General Physics, by Karlem Reiss. 46:63-7, Ja '46.

Relativity in High School Physics, by Richard Hammond. 58:461-3, Je '58.

Remagnetization of U-Magnets, by Joseph A. Mack. 45:79-82, Ja '45.

Remagnetization of U-Magnets' Again, by Luther C. Davisson. 46:34, Ja '46.

Remagnetizing Bar Magnets, by William Hakkarinen. 39:811, De '39.

Remagnetizing Old Compasses, by W. C. Ferguson. 40:844-5, De '40.

Reply to "Problem of the Loaded Table," by Harry Roeser. 14:412-5, My '14.

Report on New Type Boyle's Law Apparatus, by Temple C. Patton. 39:167-8, Fe '39.

Research Work for Physics Teachers, by E. L. Nichols. 1:10-2, Mr '01.

Resistance as a Function of Temperature, by Phillip Collins. 59:443-4, Je '59.

Resistance Demonstration Assembly, by F. W. Moody. 41:338-9, Ap '41.

"Reverse Action" Lenses, by Frank Hawthorne and Lee Dunbar. 51:648, N '51.

Rotation of a Magnet Pole, by H. E. Hadley. 11:851-2, De '11.

Selected Topics in Acoustics, by F. R. Watson. 36:474-8, My '36.

Self Induction, by F. W. Moody. 44:231-2, Mr '44.

Sensitive Galvanometers for the High School Laboratory, by Geo. P. Unseld. 31:1016-8, N '31.

Sensitive Relay from Old Galvanometer, by Walter Everman. 33:950, De '33.

Series and Parallel Resonant Circuits, by Martin H. Patrick. 49:226-8, Mr '49.

Series Resonance, by Harald C. Jensen. 58: 634-5, N '58.

Shooting Surface Film, by Haym Kruglak. 37: 602, My '37.

Showing Filter Action with a Neon Lamp, by W. L. Fenner. 41:415-8, My '41.

Shunts and Attenuators, by R. R. Ramsey. 32:503-9, My '32.

Simple Apparatus for Demonstrating Pressure in Water Pipes, by Mennow W. Gunkle. 54: 665-6, N '54.

Simple Apparatus for Demonstrating the Gas Laws, by Mennow W. Gunkle. 52:614-6, N '52.

Simple Apparatus for Index of Refraction, by F. R. Gorton. 8:287-8, Ap '08.

Simple Cathode Ray Tube Apparatus, by Harald C. Jensen. 58:274-6, Ap '58.

Simple Demonstration of Color Mixtures, by H. Teike. 11:542-3, Je '11.

Simple Experiments in Photometry, by Franklin B. Wells and David S. Kilbourn. 53:119-23, Fe '53.

Simple Harmonic Motion and Induced EMF, by Julius Sumner Miller. 56:299, Ap '56.

Simple Illustrations of the Einstein Mass-Energy Relationship, by A. H. Drummond, Jr. 57:714-6, De '57.

Simple Methods of Determining the Horizontal Component of the Earth's Magnet Field, by Raymond B. Abbott. 12:533-4, Je '12.

"Slow Motion Music" With Two Pendulums, by C. A. E. Hensley. 55:301-6, Ap '55.

Smoke Doesn't Always Rise, by Glenn F. Powers and Faril Simpson. 60:4, Ja '60.

Some Analytical Mechanics on the Automobile, by Julius Sumner Miller. 48:689-95, De '48.

Some Applications of the Photronic Cell, by G. A. Shook and Barbara J. Scrivener. 32: 845-51, N '32.

Some Classroom Notes on Impact and Momentum, by Julius Sumner Miller. 49:571-7, O '49.

Some Demonstration Experiments in Selective Absorption, by E. J. Rendtorff. 10:325-6, Ap '10.

Some Everyday Applications of Acoustical Principles, by F. R. Watson. 20:193-6, Mr '20.

Some Experiences with New Experiments, by R. Sprague. 4:140-2, Je '04.

Some Experiments with a Piece of Iron Wire, by John F. Woodhull. 6:400-1, My '06.

Some Experiments with Vibrating Strings, by J. S. Shearer. 12:560-1, O '12.

Some Improvements in Apparatus for Experiments in Accelerated Motion, by E. E. Burns. 2:286-8, N '02.

Some Lecture Demonstrations in Light, by R. C. Colwell. 30:1018-9, De '30.

Some Lecture Experiments in Radio Frequency Oscillations, by Louise S. McDowell. 37: 347-9, Mr '37.

Some Misconceptions Concerning Force and Acceleration, by Joseph D. Elder. 44:645-9, O '44.

Some New Experiments with Tuning Forks, by W. H. Farr. 21:527-8, Je '21.

Some New Modifications of Old Experiments in Physics, by E. S. Bishop. 11:125-8, Fe '11.

Some Observations on Riding a Bicycle, by Julius Sumner Miller. 56:370, My '56.

Some Practical Projects in Teaching Physics, by C. F. Phipps. 22:567-71, Je '22.

Some Precise Methods of Focusing Lenses, by LeRoy D. Weld. 18:547-51, Je '18.

Some Suggestions for Performing Experiments with the Mercury Vacuum Pump, by W. T. Wilks. 38:549-51, My '38.

Some Uses of the Alternating Current in High School Work, by L. M. Parrott. 7:39-43, Ja '07.

Sound Fun with the Oscilloscope, by Robert L. Price. 51:683-8, De '51.

Spark-Recorded Time Intervals as Applied to Modern Apparatus, by Glenn M. Hobbs. 31: 1068-74, De '31.

Spark Recording of Lissajous Figures in the Elementary Physics Laboratory, by R. L. Edwards. 30:909-10, N '30.

Specific Gravity of Liquids, by E. J. Rendtorff. 10:822, De '10.

Specific Heat Demonstration, by Joseph A. Mack. 53:677-9, De '53.

Specifications for a Cheap and Serviceable Specific Gravity Balance, by W. E. Bowers. 1:477-80, Fe '02.

Speed Ratio and Mechanical Advantage of the Worm Gear Drive, by F. W. Moody. 38:259, Mr '38.

Standing Wave Demonstrations, by Wallace A. Hilton. 52:475-6, Je '52.

Standing Waves in a Wire, by Harald C. Jensen. 58:90-2, Fe '58.

Static Charges Produced on the Ends of a Conductor Moving Across a Magnetic Field, When Its Motion, Length, and Field Are Mutually at Right Angles to Each Other, by S. R. Williams. 52:604-6, N '52.

Static Forces Frame, by John A. Doughty. 51:114-6, Fe '51.

Steam Trap for Latent Heat of Vaporization, by R. O. Austin. 9:477, My '09.

Stereoscopic Harmonic Curves, by William F. Rigge. 24:29-36, Ja '24.

Storage for Short Wires, by Edward E. Ford. 25:589, Je '25.

Students' Self-Filling Barometer, by F. R. Gorton. 12:490-1, Je '12.

Surface Tension and Relative Densities, by Howard H. Hillemann. 38:645-6, Je '38.

Surface Tension of Water, by W. Irwin Thompson. 37:534-5, My '37.

Teaching Fluid Pressure, by Wm. A. Porter. 32:340-2, Mr '32.

Teaching Temperature Effects to Elementary Students, by R. A. Baker. 25:628-30, Je '25.

Teaching the Major Concepts of Relativity, by George G. Mallinson. 58:454, Je '58.

Teaching the Relativistic Concepts, by E. J. Konopinski. 58:454-9, Je '58.

Test of a Variable Immersion Hydrometer, by Paul F. Gaehr. 21:743-5, N '21.

The Acceleration of Falling Bodies is Independent of Their Densities, by E. J. Rendtorff. 9:476-7, My '09.

The Angular Momentum Laws, by Will C. Baker. 16:822-5, De '16.

The Artificial Creation of Speech, by J. Owen Perrine. 42:105-8, Fe '42.

The Atom Goes to School, by Maitland P. Simmons. 56:178-80, Mr '56.

The Ballistic Pendulum: A Simple Apparatus for Studying Momentum and Energy Relation, by Paul E. Klopsteg. 25:694-700, O '25.

The Bent Lever as Used to Measure the Moments of Parallel Forces, by Frank R. Pratt. 19:734-6, N '19.

The Best Arrangement of Cells, by S. Collins Paine. 25:500-6, My '25.

The Calibration of Laboratory Instruments, by Sheldon S. Myers. 47:698-700, N '47.

The Cartesian Diver, by Philip Fitch. 11: 543-4, Je '11.

The Change of Origin for Velocities, by Hiram W. Edwards. 27:397-400, Ap '27.

The Climbing Monkey, by William F. Rigge. 17:821, De '17.

The Coefficient of Expansion of Air at Constant Volume, by F. A. Osborn. 1:476-7, Fe '02.

The Color of Objects, by Arthur W. Gray. 3: 405-7, Ja '04.

The Construction of a Simple Oscillograph, by Herbert Ott and Saul Geffner. 35:583-5, Je '35.

The Cosmic Ray in High School Physics, by H. Emmett Brown. 30:254-64, Mr '30.

The Crossover Problem, by Ronald L. Ives. 59:19-23, Ja '59.

The Density Ball, by Louis T. Masson. 34: 635, Je '34.

The Determination of Electrical Resistances by Means of Potential Differences, by R. A. Burtnett. 16:815-7, De '16.

The Determination of E/M for Cathode Rays as a Laboratory Experiment for an Undergraduate Course in Electrical Measurements, by Chas. T. Knipp. 14:555-62, O '14.

The Determination of "g," by A. C. Longden. 22:628-31, O '22.

The Determination of Molecular Dimensions by the Oil Film Method, by John Laughlin. 41:115-8, Fe '41.

The Difference of the Densities of Two Gases, by F. W. Jorden. 8:17-8, Ja '08.

The Differential Pulley or Chain Hoist, by W. F. Roecker. 20:142-3, Fe '20.

The Direct Measurement of "G," by John Noehl. 59:673-9, De '59.

The Dissectible Leyden Jar, by Walter P. White. 3:354-5, De '03.

The Door Problem, by Roy R. Hatch. 30:406, Ap '30.

The Drop Method of Measuring Surface Tension, by C. E. Linebarger. 10:114-7, Fe '10.

The Educational Use of Soap Bubbles, by Eiffel G. Plasterer. 44:462-6, My '44.

The Educational Value of Scientific Toys, by Morris Meister. 22:802-13, De '22.

The Effect of Air Resistance on Falling Bodies, by Carl Kibler and Lewis Linder. 12:141-4, Fe '12.

The Effective Use of Practical Equipment in a Physics Course, by Ellsworth S. Obourn. 28:275-80, Mr '28.

The Electric Doubler, by W. S. Franklin. 26:534-6, My '26.

The Electric Doubler, by J. O. Perrine. 56: 267-85, Ap '56.

The Electrical Constitution of Matter, by E. Waite Elder. 10:487-93, Je '10.

The Electrolytic Rectifier, by H. C. Shurlock. 8:594-5, O '08.

The Elements of Circular Motion, by Francis E. Nipher. 5:541-3, O '05.

The Energy of a Projectile Fired from a Moving Platform, by John Satterly. 52:193-4, Mr '52.

The Evolution of a Spectroscope, by C. E. Lloyd. 44:539-41, Je '44.

The Exhaust Barometer in Air Pressure Demonstrations, by Benjamin H. Stasch. 44:201-5, Mr '44.

The Factors Determining Liquid Pressure, by W. A. Porter. 39:158-9, Fe '39.

The Force Exerted by Freezing Water, by Benj. H. Brown. 11:693-5, N '11.

The Foucault Pendulum: A Demonstration in High School Physics, by M. J. W. Phillips. 42:413-8, My '42.

The Fundamental Concepts of Electrical Energy and the Beginning Student, by O. L. Brauer. 16:494-7, Je '16.

The Glow-Light Oscillograph, by P. M. Dysart. 14:36-9, Ja '14.

The Graphical Construction of Images for Lenses and Mirrors, by Gordon Mills. 47: 30-2, Ja '47.

The Greatest Frequency of a Compound Pendulum, by J. O. Perrine. 44:819-22, De '44.

The Harbor Modelvernier, by L. A. Sprague. 25:816, N '25.

The Harmonograph as a Project in High School Physics, by R. L. Doan. 23:450-5, My '23.

The Heat of Fusion of Tin, by C. W. Waggoner. 13:669-71, N '13.

The Ideal Gas Laws, by George Antonoff and Duncan Randall. 48:118-21, Fe '48.

The Images of Optical Systems, by R. C. Colwell. 34:460-3, My '34.

The Improved Derrick as Used in the Physics Laboratory for the Study of Graphic Statics, by Frank R. Pratt. 17:229-32, Mr '17.

The Index of Refraction of Water, by V. D. Hawkins. 4:160-2, Je '04.

The Index of Refraction. (Snell's Law), by John C. Shedd. 6:678-80, N '06.

The Ionoscope, by Larrance Page. 24:981-2, De '24.

The Latest Wrinkles in Cartesian Divers, by Paul Ligda. 28:302-4, Mr '28.

The Laue X-Ray Diffraction Experiment, by Wallace A. Hilton. 51:717-20, De '51.

The Law of Charles by Experiment, by F. R. Gorton. 15:581-2, O '15.

The Laws of Falling Bodies, by A. L. Fitch. 52:694-6, De '52.

The Laws of Motion, by Wm. S. Franklin. 27: 9-11, Ja '27.

The Lecture Demonstration of Boiling Point Elevation and Freezing Point Depression, by Wesley W. Wendlandt and George K. Estok. 55:739-40, De '55.

The Loaded Table Again, by Oran L. Raber. 14:411, My '14.

The Locus of a Focus, by Hollis D. Hatch. 43:517-20, Je '43.

The Machine With Friction, by Francis E. Nipher. 8:729-34, De '08.

The Magnetic Field Surrounding a Voltaic Cell, by R. H. Cornish. 16:113-5, Fe '16.

The Magnetic Method of Producing Ultra-Low Temperatures, by Laurence L. Quill and Richard F. Robey. 36:871-85, N '36.

The Manipulation of the Achromatic Prisms in Physics, by Von Schafer. 14:52-3, Ja '14.

The "Match Head" Cartesian Diver, by Frank Hawthorne. 51:429, Je '51.

The Meaning of the Formula F = ma, by G. W. Stewart. 5:539-40, O '05.

The Mechanical Equivalent of Heat by the Electrical Method, by William Hakkarinen. 40:252-4, Mr '40.

The Method of Dimensions, or, the Nature of Physical Quantities, by Julius Sumner Miller. 50:629-36, N '50.

The Method of Limits in Physics, by G. B. Blair. 16:730-3, N '16.

The Modern Aircraft Propeller and the Physics Course, by Eugene W. Gross. 45:819-27, De '45.

The Monkey Climbs Again, by Wilbert A. Stevens. 19:815, De '19.

The Monkey Stops Climbing, by William F. Rigge. 20:172-3, Fe '20.

The Nature of Centrifugal Force, by Catharine M. Bergen. 60:673-8, De '60.

The Negation of Perpetual Motion in Elementary Physics, by Wilson C. Morris. 13:469-79, Je '13.

The New World of the Electron, by L. P. Sieg. 17:58-69, Ja '17.

The Nodon Valve; Or an Efficient Rectifier for a Dollar, by Cyril O. Smith. 7:665-6, N '07.

The Oscilloscope in High School Physics Demonstration, by Joseph A. Mack. 51:41-58, Ja '51.

The Physics Class Measures Blood Pressure, by D. C. Barrus. 28:730, O '28.

The Plane Mirror Experiment, by Glen W. Warner. 39:277-8, Mr '39.

The Problem of the Loaded Table. 14:596-9, O '14.

The Problem of the Loaded Table, by Ernest R. von Nardroff. 14:211-3, Mr '14.

The Problem of the Loaded Table: A Rejoinder, by Ernest R. von Nardroff. 14:682-4, N '14.

The Projection of the Brownian Movements, by Walter O. Walker. 22:507-9, Je '22.

The Projection of "The Guinea and the Feather" Experiment, by A. P. Carman. 13:421-2, My '13.

The Proper Conception of a Normal Force, by R. T. Chase. 25:578-89, Je '25.

The Pupil Initiated Project in High School Physics, by M. J. W. Phillips. 41:346-50, Ap '41.

The Radiometer and the Inverse Square Law, by Julius Sumner Miller. 52:455, Je '52.

The Recitation in a Science Type Subject, by Clifford Holley and Vergil C. Lohr. 31:34-40, Ja '31; and 31:152-5, Fe '31.

The Refraction of Stream Lines, by Lindley Pyle. 11:326-8, Ap '11.

The Removal and an Explanation of Difficulties with the "Volume Coefficient of Expansion" Apparatus, by Albert E. Hennings. 12: 9-10, Ja '12.

The Repair of Broken Electrodes, by N. F. Smith. 17:842, De '17.

The Ripple Tank and the Doppler Effect, by Hiram W. Edwards. 33:537-9, My '33.

The Rolling Cylinder and the Work Equation, by Hiram W. Edwards. 23:536-8, Je '23.

The Rotating Chain Centrifugal Force Apparatus, by Julius S. Miller. 40:13, Ja '40.

The Rotostat and Goniostat: A Teachers' Class Room Device for Instruction in Projection, by Herman Hanstein. 9:868-70, De '09.

The Selenium Cell as a Contact Maker, by Phillip Fitch. 12:145-6, Fe '12.

The Simple Pendulum, by Julius Sumner Miller. 50:269, Ap '50.

The Singing and the Speaking Arc Lights, by K. E. Guthe. 2:209-15, O '02.

The Siphon, by J. C. Packard. 30:79-80, Ja '30.

The Siphon as a Quantitative Laboratory Experiment, by H. W. Harmon. 9:12-9, Ja '09.

The Siphon - Two New Lecture Demonstrations, by Will C. Baker. 7:748-50, De '07.

The Spheroidal State, by Gerhard Derge. 31: 184-8, Fe '31.

The Spool Problem, by Harald C. Jensen. 59: 156-7, Fe '59.

The St. Louis Laboratory Motor, by S. A. Douglass. 9:678-81, O '09.

The Stereopticon as an Aid to Physics Teaching, by Chas. F. Valentine. 28:78-80, Ja '28.

The Study of Accelerated Motion by Means of the Inclined Plane, by N. F. Smith. 6:44-6, Ja '06.

The Tangent Galvanometer in the High School Laboratory, by C. L. Vestal. 12:772-6, De '12.

The Teaching of Electric Circuit Principles, by Arthur B. Hussey. 44:43-5, Ja '44.

The Teaching of Electrical Potentials in Cells or Generators to Elementary Students, by Mason E. Hufford. 17:819-21, De '17.

The Teaching of Heat Transfer Processes Through the Use of a Water Transfer Analogy, by Temple Chapman Patton. 37:317-27, Mr '37.

The Teaching of the Concepts of Relativity, by Robert Lagemann. 58:460-1, Je '58.

The Theory of the Electron Microscope, by Benjamin Bold. 50:58-61, Ja '50.

The Third Law of Motion, by J. O. Perrine. 16:14-7, Ja '16.

The Third Law of Motion and Mr. J. O. Perrine's Explanation of It, by N. Kuppuswami. 17:827-8, De '17.

The Treatment of Energy in Mechanics, by Fernando Sanford. 6:614-9, O '06.

The Treatment of Energy in Mechanics and Heat, by S. E. Coleman. 6:602-13, O '06.

The Use of a Display Case for Science Education, by Clarence Ames. 50:511-4, O '50.

The Use of a Light Intensity Meter, by Erwin Miller. 36:34-8, Ja '36.

The Use of Assembled Units as an Efficient Method of Storing Demonstration Apparatus, by F. W. Moody. 39:872-4, De '39.

The Use of Glass Blocks in Refraction, by Henry Garrett. 5:359-62, My '05.

The Use of Local Applications in the Teaching of Physics, by S. E. Boomer. 22:315-9, Ap '22.

The Use of 110 Volt Direct Current in the Laboratory, by W. M. Butler. 8:510-1, Je '08.

The Use of Problems in High School Physics, by James G. Harlow. 38:673-6, Je '38.

The Use of Springless Automatic Scales in the Physics Laboratory, by L. P. Sieg. 16: 18-22, Ja '16.

The Use of the Electric Heater in Efficiency Tests, by Ernest Reveley Smith. 13:10-4, Ja '13.

The Use of the Electron in Elementary Physics, by Daniel L. Rich. 20:220-5, Mr '20.

The Use of the Jolly Balance in Calorimetry Experiments, by Harvey L. Curtis. 2:337-9, De '02.

The Use of the Microscope in the Physical Laboratory, by E. J. Rendtorff. 9:337-9, Ap '09.

The Use of the Siren in Physical Laboratories, by Will C. Baker. 19:813-5, De '19.

The Use of the Telescope in Experimental Optics, by E. J. Rendtorff. 8:453-61, Je '08.

The Value of Anecdotes in the History of Physical Science, by E. H. Johnson. 23:630-7, O '23.

The Value of the Verbal Problem, by J. M. Kinney. 25:267-70, Mr '25.

The Velocity of a Rifle Bullet, by N. F. Smith. 26:988-90, De '26.

The Water Lens, by Louis T. Masson. 34:699, O '34.

The Wave Form of an Alternating Current, by J. C. Jensen. 22:571-4, Je '22.

Thermal Conductivity of Gases, by Aurlocolus C. Herald. 60:636-8, N '60.

Thermometric Conversion, by Hilton Ira Jones. 7:673, N '07.

Those Notebooks, by Loyd C. Elliott. 17: 745-6, N '17.

Three Demonstrations in One, by Julius Sumner Miller. 52:172, Mr '52.

Three Horse Eveners, by Frank Hawthorne. 52:59-60, Ja '52.

Three Inexpensive Demonstration Aids, by W. S. Drury. 39:168-9, Fe '39.

Three Phase Demonstration Generator, by F. W. Moody. 42:369-71, Ap '42.

Time Curves, by Walter H. Carnahan. 47: 507-11, Je '47.

To Determine the Horsepower of a Small Steam Engine, by C. H. Perrine. 6:778-9, De '06.

To Determine the Vapor Tension of a Liquid Which Does Not Combine Chemically With Mercury, by F. W. Moody. 10:819-21, De '10.

To Explain the Gyroscope, by George P. Unseld. 47:48-53, Ja '47.

To Remodel an Old Style Air Pump, by Harrison H. Brown. 8:322-4, Ap '08.

To Weigh Electricity, by Geo. P. Unseld. 29:519-25, My '29.

Topics Sometimes Neglected in Teaching Eletricity, by N. Henry Black. 3:497-503, Mr '04.

Toys and Physics, by Julius Sumner Miller. 59:359-70, My '59.

Transient Induced Electromotive Force, by Harald C. Jensen. 59:489-90, Je '59.

Translation, Revolution, Rotation, by F. C. VanDyck. 17:410-1, My '17.

Transmutation and Artificial Radioactivity, by J. Noel Corbridge. 44:511-6, Je '44.

Transposition of Music, by Donald Kiel. 59: 743-4, De '59.

Two Corrections for Kater's Pendulum, by John B. Kremer. 21:836-8, De '21.

Two Electrical Thermoscopes, by E. J. Rendtorff. 10:202-3, Mr '10.

Two Experiments Relating to Change of State, by Elmer E. Hall. 10:21-3, Ja '10.

Two Interesting Physics Experiments, by Frank M. Greenlaw. 7:127, Fe '07.

Two Laboratory Experiments on the Equilibrium of Torques, by Miles J. Martin. 30: 635-7, Je '30.

Two Laboratory Motor Variants, by Elbert C. Weaver. 45:598, O '45.

Two New Daylight Photometers, by D. L. Barr. 38:855-60, N '38.

Two Pieces of Lecture Apparatus for Lantern Demonstrations, by Will C. Baker. 6:672-5, N '06.

Two Projection Demonstrations in Electrostatics, by Will C. Baker. 9:51-3, Ja '09.

Two Uses for Graphs, by William Sleator. 17:737-42, N '17.

U and I and You and I, by James B. Davis. 50:435-6, Je '50.

Uniform Circular Motion, by W. W. Sleator. 23:112-7, Fe '23.

Uniform Circular Motion Again, by G. B. Blair. 34:593-5, Je '34.

Unity, a Useful Concept, by Moody L. Coffman. 50:627-8, N '50.

Unusual Demonstration Experiments, by J. O. Frank and Guy J. Barlow. 34:72-6, Ja '34.

Use the Electric Outlet for Demonstrating Vacuum Tubes, by Andrew Douglas. 41:478-81, My '41.

Uses of the Aspirator, by H. J. Wing. 24: 627-30, Je '24.

Using the Air Pump in the Cartesian Diver Demonstration, by H. F. Cope. 32:390, Ap '32.

Vacuum Tube Electroscope, by Arthur B. Hussey. 43:46-8, Ja '43.

Variable High Voltage DC Supply, by Harald C. Jensen. 58:338-40, My '58.

Variation of Focus in Lenses, by J. O. Perrine. 14:415-7, My '14.

Vectors and Their Uses, by Louis Brand. 43: 729-41, N '43.

Velocity of a Transverse Wave in a Cord - A Criticism, by N. F. Smith. 31:610-4, My '31.

Velocity of Sound in Solids, by R. M. Barrus. 8:559-60, O '08.

Velocity of Transverse Vibrations in Strings, by F. M. Denton. 30:637, Je '30.

Verifying the Laws of the Pendulum, by Edison Pettit. 14:303-5, Ap '14.

Vibration Frequency With a Motor Rotator, by M. L. Fluckey. 16:729, N '16; and 16:821, De '16.

Visualizing Flowlines in Fluids, by John B. Leake. 37:520-1, My '37.

Visualizing Oscillations by Means of a Useful and Interesting Lecture Table Apparatus, by Charles F. Bowel. 12:567-71, O '12.

Visualizing the Center of Gravity, by John B. Leake. 37:223-5, Fe '37.

Walking and Climbing Tops, by R. C. Colwell. 27:137-9, Fe '27.

Wave Motions and Inertia, by A. W. Duff. 34:759-60, O '34.

Weight, Mass and the Dyne, by W. C. Hawthorne. 29:295-7, Mr '29.

What About the Monocycle, by H. Lynn Bloxom. 33:104-6, Ja '33.

What Is Mass?, by Arthur J. Mills. 54:556, O '54.

What Is the Weight of a Body?, by Julius Sumner Miller. 54:63-4, Ja '54.

Wheatstone Bridge Apparatus, by Wm. A. Harriman. 36:1017-8, De '36.

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MATHEMATICS

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International Commission on the Teaching of Mathematics. 9:777-88, N '09.

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Mathematics Helps Our Aerial Offense, by Lester Dawson. 42:722-3, N '42.

Mathematics in and Below the High School, by L. D. Wines. 7:183-95, Mr '07.

Mathematics in Civil Engineering, by W. E. Howland. 35:351-60, Ap '35.

Mathematics in General Education, by John C. Bryan. 58:249-55, Ap '58.

Mathematics in General Education, by Raleigh Schorling. 49:296-301, Ap '49.

Mathematics in Industry, by C. J. Leonard. 29:245-55, Mr '29.

Mathematics in Normal Schools of Germany and Scotland, by William A. Austin. 12:107-10, Fe '12.

Mathematics in the Education of Girls, by Ina E. Holroyd. 14:490-4, Je '14.

Mathematics in the Elementary Schools, by Adelbert H. Morrison. 12:593-605, O '12.

Mathematics in the Integrated Curriculum, by H. W. Charlesworth. 35:622-6, Je '35.

Mathematics in the Junior and Senior High Schools, by Marie Gugle. 25:29-35, Ja '25.

Mathematics in the Junior College, by J. S. Georges. 37:302-16, Mr '37.

Mathematics in the Modern School Program, by G. E. Hawkins. 47:569-72, Je '47.

Mathematics in the Scheme of General Education, by J. S. Georges. 31:1056-67, De '31; and 32:57-64, Ja '32.

Mathematics in the Senior High School, by Fiske Allen. 24:716-26, O '24.

Mathematics in the Social Sciences, by Henry Winthrop. 57:9-16, Ja '57.

Mathematics in the Telephone Industry, by Edward C. Molina. 40:403-10, My '40.

Mathematics in War, by Robert Storm. 42: 891-2, De '42.

Mathematics Required by Industrial Workers as Applied in High School, by W. B. Russell. 11:704-8, N '11.

Mathematics, Tangrums, Tools, Templates, and Tongues, by Paul L. Trump. 50:229-36, Mr '50.

Mathematics The Language of Quantity, by H. C. Christofferson. 46:101-6, Fe '46.

Mathematics - To Reason Not Just to Do, by Joseph Spear. 38:402-10, Ap '38.

Mathematics Tuned to the Times, by Donnell H. Hunt. 44:789-92, De '44.

Methods of Selecting Freshmen for Accelerated Work in Mathematics, by W. J. Cherry. 58:467-71, Je '58.

Minimum High School Mathematics, by Florian Cajori. 21:25-8, Ja '21.

Minimum Mathematical Preparation for Various College Curricula, by P. D. Edwards. 49:181-7, Mr '49.

Model for Introducing Trigonometry on Ninth Grade Level, by Ethel L. Grove, Ewart L. Grove, and Charles E. Scott. 51:296-7, Ap '51.

Modern Developments in Elementary and Secondary Mathematics, by G. A. Miller. 17: 32-42, Ja '17.

Modern Methods and Current Criticisms of Mathematical Education, by Maurice L. Hartung. 55:85-90, Fe '55.

Modern Trends in Mathematics Education, by W. D. Reeve. 48:21-33, Ja '48.

More Mathematical Fallacies, by Cecil B. Read. 33:977-83, De '33.

Motivating Mathematics, by Charles M. Austin. 39:134-47, Fe '39.

Movements in Mathematical Teaching, by David Eugene Smith. 5:135-9, Mr '05.

Must All Mathematics be Forgot?, by F. R. Powers and A. W. Engle. 38:871-88, N '38.

Needed: A Funeral of Algebraic Phraseology, by Effie Graham. 14:31-3, Ja '14.

New Emphases in Mathematical Education, With References to Recent Literature, by William L. Schaaf. 49:639-49, N '49.

New Number Systems vs. the Decimal System, by J. T. Johnson. 40:828-34, De '40.

Note on Teaching, by R. F. Graesser. 55: 270, Ap '55.

Note on the American Syllabus in Algebra, by James F. Millis. 10:263, Mr '10.

Note on the Preparation of College Freshmen in Elementary Algebra, by Ernest W. Ponzer. 11:737-9, N '11.

Note on Winthrop's "Mathematics in the Social Sciences," by Samuel Goldberg. 57:682-4, De '57.

Notes on Calculus: A Trigonometric Procedure by John J. Aeberly, by George G. Mallinson. 58:285, Ap '58.

Number and the Four Fundamental Operations of Arithmetic, by Glenn James. 37:1025-8, De '37.

Objectives of Ninth-Grade Mathematics in Recent Courses of Study, by Kathryn McCamey. 38:972-5, De '38.

On Necessary and on Sufficient Conditions in Elementary Mathematics, by Karl Menger. 39: 631-42, O '39.

On the Definition and Scope of Plane Trigonometry, by Robert E. Moritz. 8:392-9, My '08.

On the Development of Elementary Geometry in the Nineteenth Century, by G. A. Miller. 7: 752-5, De '07.

On the Importance of the Numberical Exercise in Teaching Geometry, by Arthur Schultze. 5:245-9, Ap '05.

On the Place of Mathematics in Modern Education, by D. N. Lehmer. 9:638-43, O '09.

On the Selection of Topics for Elementary Algebra, by E. R. Hedrick. 11:51-60, Ja '11.

On the Study of Mathematics, by Frank W. Bubb. 38:639-44, Je '38.

On the Teaching of Mathematics to Freshmen Engineering Students, by Ernest W. Ponzer. 12:99-106, Fe '12.

On the Use and Abuse of Text-Books, by D. N. Lehmer. 8:13-7, Ja '08.

Organization of Congress in Secondary Vocational Mathematics, by W. T. Stratton. 13: 779-92, De '13.

Organization of Secondary Mathematics, by Walter W. Hart. 23:638-47, O '23.

Our Geometric Environment, by E. E. Watson. 39:258-69, Mr '39.

Personal Observations of the Teaching of Mathematics in Prussia, by Herbert E. Cobb. 7:518-23, Je '07.

Plane Geometry for the Ninth and Tenth Grades, by Robert R. Goff. 19:357-8, Ap '19.

Plans for the Reorganization of College Preparatory Mathematics, by H. Van Engen. 58:277-85, Ap '58.

Practical Mathematics, by J. E. Mahannah. 41:540-8, Je '41.

Practical Suggestions as to Ways of Improving the Mathematical Output of Secondary Schools, by J. J. Shobinger. 5:401-6, Je '05.

Practical Suggestions as to Ways of Improving the Mathematical Product of the High Schools, by Effie Graham. 9:433-8, My '09.

Practical Work in Arithmetic, by Myrtie Collier. 16:524-9, Je '16.

Prehistoric Mathematics?, by Raymond L. Krueger. 38:797-8, O '38.

Preliminary Report of the Committee of the Mathematics Section of the Central Association on the Unifying of Secondary Mathematics, by H. E. Cobb (Chrm.). 8:760-4, De '08; and 8:635-44, N '08.

Preliminary Report of the International Commission on Secondary Mathematics. 9:103-13, Fe '09.

Preliminary Report of the "National Committee on Geometry Syllabus" and Its Practical Pedagogical Implications, by William Betz. 10: 684-94, N '10.

Principles of Solid Geometry Basic to Navigation, by Laura Blank. 44:813-8, De '44.

Problems in the Teaching of Junior High School Mathematics, by Chas. H. Butler. 26: 497-9, My '26.

Problems That Arise in the Teaching of Elementary Algebra in the First Year High School Course, by Alice M. McKelden. 7:363-71, My '07.

Progressive Teaching of Mathematics - What Is It?, by G. W. Myers. 18:387-96, My '18.

Project Method in Mathematics, by Bryon Cosby. 22:451-5, My '22.

Proposals for Reform in the Teaching of Mathematics and Science in the Nine-Class Higher Schools of Prussia, by H. E. Cobb. 6:708-10, N '06.

Proposed Revision and Acceleration of the High School Mathematics Program. 60:214-21, Mr '60.

Provisional Report of the National Committee of Fifteen on Geometry Syllabus. 11:329-55, Ap '11; 11:434-60, My '11; and 11:509-31, Je '11.

Psychological Notions Expressed in Mathematical Form, by Herbert A. Toops. 33:479-89, My '33.

Pure and Applied Mathematics, by Eliakim Hastings Moore. (Mathematical Supplement) 1:25-8, Ap '03; and 1:57-63, Je '03.

Putting Meaning Into Algebraic Concepts and Relationships, by John J. Kinsella and Walter H. Carnahan. 49:19-26, Ja '49.

Ranking Objectives in Mathematics, by Brother T. Brendan. 58:333-7, My '58.

Rational vs. Mechanical Methods in Teaching Mathematics, by Joseph V. Collins. 15:600-5, O '15.

Reaching the Individual in Mathematics Instruction, by J. M. Jacobs. 31:575-85, My '31.

Reactions to Calculus: A Trigonometric Procedure, by George G. Mallinson. 58:360, My '58.

Recent Revisions in Soviet Mathematics Education, by Bruce R. Vogeli. 60:425-38, Je '60.

Recent Tendencies in the Teaching of Elementary Applied Mathematics, by J. R. Young. 17:237-44, Mr '17; and 17:321-8, Ap '17.

Reception to the Members of the National Committee on Mathematics Requirements for Secondary Schools, by Rev. W. J. Ryan. 21: 696-8, O '21.

Reform in the Teaching of Mathematics, by G. A. Miller. 16:35-9, Ja '16.

Related Mathematics in the Co-Operative Sheet Metal Course, by Barnet Rudman. 32: 725-35, O '32.

Remarks on Certain Fallacies, by D. A. Lehman. 9:397, Ap '09.

Remarks on Psychological Investigations Bearing on the Disciplinary Value of Studies, by J. W. A. Young. 18:130-8, Fe '18.

Remedial Arithmetic in the Regular Classroom, by Jean F. Hamilton. 56:197-209, Mr '56.

Remedial Classes in Geometry, by Joseph A. Nyberg. 34:853-61, N '34.

Reorganization of Secondary Mathematics, by J. M. Kinney. 23:339-47, Ap '23.

"Repeaters" Classes in Algebra, by Jos. A. Nyberg. 23:239-45, Mr '23.

Report of Committee of Mathematics Section of Central Association of Science and Mathematics Teachers on Real Applied Problems in Algebra and Geometry, by Committee. 9:788-98, N '09.

Report of the Committee on "A Straight Line is the Shortest Distance or Path Between Two Points," by G. B. Halsted, C. S. Howe, and W. H. Wilson. 6:202-3, Mr '06.

Report on the Unification of Mathematics in the University High School, by G. W. Myers. 11:777-90, De '11.

Report on Vocational Mathematics, by K. G. Smith (Chrm.). 16:337-46, Ap '16.

Required Mathematics in the Four Year High School, by R. D. Shouse. 22:15-9, Ja '22.

Scientific Psychological Principles Applied to a Typical Teaching Situation in First Year Algebra, by Orlie M. Clem. 26:384-8, Ap '26.

Second Report of Committee of Mathematics Section of Central Association of Science and Mathematics Teachers on Real Applied Problems in Algebra and Geometry, by James F. Miller (Chrm.). 10:673-83, N '10.

Secondary Mathematics, by R. L. Short. 7: 290-1, Ap '07.

Selling Mathematics, by Walter H. Carnahan. 45:148-53, Fe '45.

Senior High School Mathematics, by Marc A. Laframboise. 58:565-7, O '58.

Shall We Discard Geometry?, by Clyde A. Bridger. 37:758-9, Je '37.

Short Term and Long Term Effects of the War on the Secondary Curriculum, by William L. Hart. 43:499-508, Je '43.

Should Concrete Multipliers and Divisors Be Allowed? 11:295-6, Ap '11.

Significance of the History of Mathematics to the Teacher of Elementary Mathematics, by Alva Walker Stamper. 11:430-3, My '11.

Significant Trends in Secondary Mathematics, by W. D. Reeve. 49:229-36, Mr '49.

Solving Problems in Arithmetic, by Fletcher Durell. 28:925-35, De '28.

Some Changes in Teaching Geometry, by Wm. A. Francis. 10:399-405, My '10.

Some Comments on the National Council of Mathematics Teachers' Yearbook, by H. C. Wright. 26:990-3, De '26.

Some Difficulties of the Mathematics Teacher, by Cora Strong. 5:349-55, My '05.

Some Factors Affecting the Selection of the High School Course of Study and Methods of Teaching of Mathematics, by H. R. Douglas. 20:287-99, Ap '20.

Some Ideas About High School Algebra, by Wm. B. Borgers. 17:603-5, O '17.

Some Mathematical Concepts to be Taught in the Tenth Grade or Teaching Geometry as a Way of Thinking, by H. C. Christofferson. 39:29-38, Ja '39.

Some Modern Notions in the Rational Teaching of Elementary Algebra, by Jas. F. Millis. 7:176-82, Mr '07.

Some Needed Breakthroughs in Mathematics Education, by Monte S. Norton. 60:533-8, O '60.

Some Notes on the Introduction to Geometry, by J. O. Hassler. 26:723-8, O '26.

Some Observations on the Study and Teaching of Mathematics in Germany, by G. N. Armstrong. 14:695-703, N '14; and 14:782-9, De '14.

Some Points in the History of Greek Mathematics Which Are Useful in Secondary Teaching, by Julie Servaty. 5:553-7, O '05; and 5: 606-10, N '05.

Some Problems Confronting the Teachers of Geometry, by Clarence W. Sutton. 5:139-45, Mr '05.

Some Problems for the Classroom from the Orientation Work of the A.E.F., by C. A. Epperson. 20:210-3, My '20.

Some Questionable Terms and Definitions Used in Elementary Mathematics, by G. A. Miller. 8:294-9, Ap '08; and 8:571-6, O '08.

Some Recent Discussion of the Teaching of Mathematics, by W. W. Beman. (Mathematical Supplement) 1:28-31, Ap '03.

Some Recent Discussion on the Teaching of Mathematics, by W. W. Beman. (Mathematical Supplement) 1:72-3, Je '03.

Some Reflections on the Current Discussion of Secondary Mathematics, by Walter H. Wood. 17:815-8, De '17.

Some Reflections on the General Mathematics Situation, by John J. Kinsella. 54:431-8, Je '54.

Some Sidelights for the Arithmetic Teacher, by William L. Schaaf. 47:315-22, Ap '47.

Some Suggestions on the Teaching of High School Mathematics, by R. L. Short. (Mathematical Supplement) 1:70-2, Je '03.

Some Thoughts on the Teaching of Geometry, by C. A. Pettersen. 6:756-61, De '06.

Some Vital Points in the Teaching of Geometry, by Herbert E. Hawkes. 8:222-5, Mr '08.

Staking Out New Ground in High School Arithmetic, by Jack D. Wilson. 54:257-66, Ap '54.

Standards in Education, by Louis C. Karpinski. 14:745-8, De '14.

Statistical Applications of Elementary Mathematics, by Dunham Jackson. 30:247-53, Mr '30.

Suggestions as to a Course in Mathematics for the Entering Class of a High School, by J. C. Packard. 6:292-3, Ap '06.

Suggestions for a Classification of Geometric Theorems, by Elmer R. Brill. 33:147-52, Fe '33.

Suggestions of the Introduction of a Course of Correlated Algebra, Geometry and Physics, by Edith Long. (Mathematical Supplement) 1:46-9, Je '03.

Syllabus - Algebra: Elementary and Intermediate, by the Teachers of Mathematics in the Middle States and Maryland. 9:900-15, De '09.

Synthetic Projective Geometry in Secondary Schools, by H. R. Phalen. 28:489-96, My '28.

Systematic Analysis and Solution of Quantitative Problems, by Paul Ligda. 26:173-80, Fe '26; and 26:241-52, Mr '26.

Teach Them Slide Rule, by Laura Blank. 51: 714-6, De '51.

Teaching for Appreciation of Mathematics, by Howard F. Fehr. 52:19-24, Ja '52.

Teaching Functional Thinking in Mathematics, by J. S. Georges. 46:733-48, N '46.

Teaching Geometry and Logic, by Joseph A. Nyberg. 39:201-9, Mr '39.

Teaching of Mathematics at the Junior College Level, by Ruth M. Ballard. 41:482-6, My '41.

Technical Mathematics for Grades 9, 10, and 11, by Myron F. Rosskopf. 54:594-600, N '54.

Technical Mathematics in the Educational Program, by A. E. Downer. 41:316-21, Ap '41.

The Administration of Mathematics Education in the United States of America, by Howard F. Fehr. 55:340-4, My '55.

The Adolescent and Arithmetic, by John J. Kinsella. 50:119-24, Fe '50.

The Algebraic Identity - Its Place in a First Course in Algebra, by I. A. Barnett. 40:427-33, My '40.

The American Syllabus in Algebra, by E. E. Whitford. 10:140-4, Fe '10.

The Application of Mathematics to Problems of the Shop, by K. G. Smith. 12:306-11, Ap '12.

The Arrangement of the Mathematical Studies in the High School Courses - A Comparison With the French System, by Ernest B. Skinner. 10:772-5, De '10.

The Beginnings of Counting, by Levi Leonard Conant. 5:385-94, Je '05.

The Case for College Geometry, by Sister M. Stephanie. 56:185-6, Mr '56.

The Case Method of Teaching Mathematics, by G. A. Miller. 19:344-9, Ap '19.

The Celebrated Case of Analytic and Inductive Method Vs. Synthetic and Deductive - Argument for the Plaintiffs, by J. O. Hassler. 27:245-9, Mr '27.

The Challenge of Practical Applications, by Margaret F. Willerding. 57:437-46, Je '57.

The Chicago Course of Study in Arithmetic, by Turner C. Chandler. 43:523-33, Je '43.

The Child's Introduction to Arithmetic Reasoning, by H. Van Engen. 55:358-63, My '55.

The Claims of Mathematics as a Factor in Education, by C. N. Moore. 20:438-42, My '20.

The Commercial Mathematics Curriculum, by Walter F. Cassidy. 41:571-80, Je '41.

The Condition of Secondary Mathematical Instruction with Some Hints as to Remedies, by Ellery W. Davis. (Mathematical Supplement) 1:6-10, Ap '03.

The Consumer and Mathematics, by Myron F. Rosskopf. 48:281-4, Ap '48.

The Crisis in High School and College Mathematics, by Paul S. Dwyer. 35:492-506, My '35.

The Cross-Section Paper as a Mathematical Instrument, by Eliakim Hastings Moore. 6: 429-50, Je '06.

The Curriculum and Aims in Biological Teaching, by Thomas W. Turner. 27:681-90, O '27.

The Definition in Geometry, by T. M. Smith. 11:794-801, De '11.

The Demise of Euclid, by E. T. Bell. 47: 327-35, Ap '47.

The Development of Algebraic Symbolism from Paciuolo to Newton, by Susan R. Benedict. 9:375-83, Ap '09.

The Development of Analytic Geometry, by Raymond A. Kassler. 48:201, Mr '48.

The Development of the Function Concept, by L. L. Dines. 19:99-110, Fe '19.

The Difficulty of the Concrete, by J. B. Shouse. 37:937-45, N '37.

The Digital Computer - A Challenge to Mathematics Teachers, by Wallace Manheimer. 54: 701-6, De '54.

The Dilemma of Vocational Mathematics, by William L. Schaaf. 42:542-9, Je '42.

The Doctrine of Formal Discipline, by Nathan A. Harvey. 18:536-8, Je '18.

The Drift of Junior High School Mathematics, by Mary A. Potter. 29:573-80, Je '29.

The "Duomal" System of Numeration and Computation, by William E. Block. 36:743-6, O '36.

The Effect of Correlation and Fusion on Geometry Instruction, by Blanche Crisp Badger. 40:749-57, N '40.

The Effects of Not Requiring Mathematics in High School, by C. E. White. 23:434-40, My '23.

The Elementary Mathematics Program in Russia, by John DeFrancis. 60:301-13, Ap '60.

The First Month of Geometry, by Jos. A. Nyberg. 21:29-36, Ja '21.

The First Yearbook of the National Council of Mathematics Teachers, by Raleigh Schorling. 25:871-2, N '25.

The Function Concept in First Year High School Mathematics, by J. M. Kinney. 21: 541-54, Je '21.

The Function Concept in Geometry, by M. O. Tripp. 27:287-90, Mr '27.

The Future of Geometry, by Walter B. Ford. 14:485-90, Je '14.

The Future of Mathematics, by E. J. Moulton. 36:124-37, Fe '36.

The Future of Mathematics Education on the Secondary School, by William David Reeve. 53:611-33, N '53; and 53:635-6, N '53.

The Goal is Mathematics for All, by Howard F. Fehr. 56:109-20, Fe '56.

The High School - College Problem, by Marie Gugle. 22:659-71, O '22.

The Historical Argument for Teaching Arithmetic, Geometry and Algebra Together in the First Year of the High School, by Willard S. Bass. 5:712-6, De '05.

The Indirect Method in Geometry, by Charles H. Butler. 39:325-36, Ap '39.

The Introduction of Demonstrative Geometry, by Ernest B. Lytle. 18:221-7, Mr '18.

The Introduction to Geometry, by Truman P. Sharwell. 27:408-9, Ap '27.

The Introduction to Plane Geometry, by M. Richard Dickter. 36:585-91, Je '36.

The Laws of Algebra and Modern Algebras, by H. S. Clair. 53:29-33, Ja '53.

The Learning Products of a Unit of Instruction in Mathematics, by J. S. Georges and C. A. Stone. 31:58-67, Ja '31; and 31:695-706, Je '31.

The Mathematics Institute at Duke University, by Veryl Shult. 48:318-9, Ap '48.

The Mathematics of the Modern Curriculum, by Carl G. F. Franzen. 40:862-6, De '40.

The Merits and Content of a Freshman Mathematics Course, by F. Lynwood Wren. 52:595-603, N '52.

The Methods and Aims of Mathematical Science, by Louis C. Karpinski. 22:718-23, N '22.

The Missouri Society of Teachers of Mathematics and Science, by E. R. Hedrick (Chrm.). 8:300-10, Ap '08.

The Nation Calls for Mathematics, by William L. Hart. 43:105-16, Fe '43.

The National Geometry Syllabus, by H. E. Slaught. 12:270, Mr '12.

The Nature of Applied Problems in Algebra, by David Eugene Smith. 6:482-8, Je '06.

The Necessary Skills Employed in the Solution of Simple Equations, by John Crofts. 30:181-4, Fe '30.

The Need for Algebra in Industry, by Kenneth Walters. 54:212-4, Mr '54.

The Need of a General Course in Mathematics, by Myrtie Collier. 22:845-50, De '22.

The Newer Type of Mathematics Compared with the Old, by John A. Swenson. 38:107-12, Fe '38.

The Norm of Social Utility in Common Fractions, by George W. Myers. 27:734-40, O '27.

The Outlook for Arithmetic, by David Eugene Smith. (Mathematical Supplement) 1:10-4, Ap '03.

The Pedagogy of Mathematics, by Ovid W. Eshbach. 46:35-41, Ja '46.

The Perry Idea in the Mathematical Curriculum, by Jos. V. Collins. 12:296-9, Ap '12.

The Place of Mathematics in General Education, by Myron F. Rosskopf. 49:565-70, O '49.

The Place of Mathematics in General Education, by Raleigh Schorling. 40:14-26, Ja '40.

The Place of Mathematics in Secondary Education, by William David Reeve. 53:273-85, Ap '53; and 53:375-86, My '53.

The Place of Mathematics in the "Secondary Schools of Tomorrow," by Raleigh Schorling (Chrm.). 16:608-16, O '16.

The Place of Pleasure in Studying Mathematics, by Fletcher Durell. 31:12-24, Ja '31.

The Place of the Function Concept in Secondary Schools Mathematics, by Arnold Dresden. 27:576-84, Je '27.

The Play of the Imagination in Mathematics, by William David Reeve. 54:463-70, Je '54.

The Primary Purpose of Training in Mathematics - Not a Kit of Tools But a Way of Thinking, by Edith L. Mossman. 38:992-1002, De '38.

The Problems of Reading in Mathematics, by Walter I. Murray. 45:54-61, Ja '45.

The Properties of Relationships in Elementary Mathematics, by J. S. Georges. 30: 271-3, Mr '30.

The Purpose and Content of High School Arithmetic, by Bryon Cosby. 17:427-33, My '17.

The Real Menace of the Sputniks to Mathematics Education, by Herman Rosenberg. 59: 723-9, De '59.

The Recitation in Mathematics, by Charles A. Stone. 26:380-4, Ap '26.

The Re-Introduction of Arithmetic Into the High School Course, by Harrison E. Webb. 13:517-24, Je '13.

The Relation Between Thinking and Memorization in Mathematics, by E. W. Atkins. 23: 760-70, N '23.

The Role of Meaning in Teaching the Fundamental Processes, by Herbert Hannon. 58: 83-9, Fe '58.

The Role of Memory in Algebra I, by Charles H. Butler. 22:523-34, Je '22; 22:613-27, O '22; 22:723-8, N '22; and 22:850-6, De '22.

The Significance of Number, by William David Reeve. 52:511-4, O '52.

The Slide-Rule in the Junior High School, by Charles A. Stone. 30:645-50, Je '30.

The Socialized Recitation in Mathematics, by F. E. Buss. 19:844-8, De '19.

The Spiral Development of Arithmetic, by Lucile B. Gates. 49:273-80, Ap '49.

The Study of History of Mathematics, by G. A. Miller. 6:294-6, Ap '06.

The Supplementary Project in Mathematics, by Chas. A. Stone. 24:905-12, De '24.

The Syllabus in Geometry, by A. Latham Baker. 10:392-8, My '10.

The Syllabus Method of Teaching Plane Geometry, by Eugene R. Smith. 9:633-7, O '09.

The Teaching of Arithmetic, by Butler Laughlin. 40:361-4, Ap '40.

The Teaching of Arithmetic, by Arthur G. Smith. 12:457-60, Je '12.

The Teaching of Collegiate Mathematics, by Aaron Bakst. 52:462-3, Je '52.

The Teaching of Collegiate Mathematics, by Phillip S. Jones. 52:523-7, O '52.

The Teaching of Collegiate Mathematics, by H. D. Larsen. 52:267-8, Ap '52.

The Teaching of Collegiate Mathematics, by C. V. Newson. 52:130-2, Fe '52.

The Teaching of Collegiate Mathematics, by Cecil B. Read. 52:47-9, Ja '52.

The Teaching of Financial Mathematics, by Myron O. Tripp. 38:542-9, My '38.

The Teaching of First Year Algebra, by William W. Strader. 19:38-44, Ja '19.

The Teaching of Geometry, by Clara A. Hart. 5:649-52, N '05; and 5:717-25, De '05.

The Teaching of Geometry. A Way Out, by Margaret A. Gaffney. 8:422-3, My '08.

The Teaching of Geometry at Tuskegee, by D. W. Woodward. 13:400-10, My '13.

The Teaching of Geometry in Its Relation to the Present Educational Trend, by William Betz. 8:625-33, N '08.

The Teaching of Mathematics, by Willis B. Caton. 54:490-2, Je '54.

The Teaching of Mathematics in California Secondary Schools, by Charles A. Noble. 7: 762-9, De '07.

The Teaching of Mathematics in the Middle Schools of Switzerland, by M. O. Tripp. 12: 688-92, N '12.

The Teaching of Mathematics in the Secondary Schools of the United States, by David Eugene Smith. 9:203-19, Mr '09.

The Three Step Method of Teaching Geometry, by Florence L. Abbott. 25:409-11, Ap '25.

The Threefold Objective of Drill in Arithmetic, by G. W. Myers. 28:281-9, Mr '28.

The Uses of Algebra in Study and Reading, by Edward L. Thorndike and Ella Woodyard. 22: 405-15, My '22; and 22:514-22, Je '22.

The Unity of Algebra and Geometry, by Louis C. Karpinski. 33:515-6, My '33.

The Value of Mathematics as a Secondary School Subject, by Harriet R. Pierce. 16: 780-9, De '16.

Theory of Numbers in Secondary Mathematics, by Mannis Charosh. 40:518-29, Je '40.

Time Allotment for Ninth and Tenth Year Mathematics, by Ralph Bates. 36:859-62, N '36.

Time Allotments in Plane Geometry, by Joseph A. Nyberg. 30:141-8, Fe '30; and 30:385-91, Ap '30.

To What Extent is a Closer Correlation of the Different Branches of College Mathematics Desirable from the Teacher's Standpoint, by W. H. Wilson. 5:235-43, Ap '05.

Today's High School to College Situation in Mathematics, by Philip Peak. 54:471-2, Je '54.

Transfer of Training, by Ethel Kortage. 48: 632, N '48.

Trends in High School Mathematics, by Jack D. Wilson. 55:462-8, Je '55.

Trends in Teaching Mathematics, by Mary A. Potter. 42:109-15, Fe '42.

Trigonometry - Convincing Mathematics for the Ninth Grade Pupil, by Laura Blank. 30: 308-14, Mr '30.

Two Years' Progress in Mathematics in the University High School, by G. W. Myers. 11: 64-72, Ja '11.

Unifying Ideas in the Arithmetic Curriculum, by Richard D. Crumley. 58:341-6, My '58.

Up-to-Date Problems in Junior High School Mathematics, by Theodore Lindquist. 20: 305-11, Ap '20.

Useful Benefits from Study of Mathematical History, by Oscar Schmiedel. 19:463, My '19.

Uses and Abuses of "School Helps" in the Teaching of Arithmetic, by A. Kennedy. 12: 110-3, Fe '12.

Valid Aims and Purposes for the Study of Mathematics in Secondary Schools, by Alfred Davis. 18:112-23, Fe '18; 18:208-20, Mr '18; and 18:313-24, Ap '18.

Value of the History of Mathematical Ignorance, by G. A. Miller. 20:813-7, De '20.

Vital Questions for Teachers of Secondary Mathematics, by J. B. Clarke. 6:561-6, O '06; and 6:657-62, N '06.

Wanted: Better Mathematics Instruction, by Robert Humbert. 48:534-5, O '48.

We Can Dress Up General Mathematics, by Sol Whitman. 52:210-2, Mr '52.

We Can Remove the Stigma from General Mathematics, by H. Vernon Price. 47:446-50, My '47.

Weakness in Present Day Arithmetic Programs, by G. T. Buswell. 43:201-12, Mr '43.

What Are Some of the Important Factors to Consider in a Program of Identifying the Gifted Pupil in Mathematics and Science?, by Monte S. Norton. 57:103-8, Fe '57.

What Are You Teaching?, by M. Wiles Keller. 56:210-20, Mr '56.

What Contributions to Mathematics Instruction Can We Expect in the Last One Half of the Twentieth Century?, by Philip Peak. 51: 171-81, Mr '51.

What Distinguishes Trigonometry?, by A. Latham Baker. 10:584-5, O '10.

What Graphical and Statistical Material Should be Included in the Ninth-Grade Mathematics Course?, by L. E. Mensenkamp. 19: 595-8, O '19.

What High School Physics Should Require from Algebra and Geometry, by F. L. Bishop. (Mathematical Supplement) 1:63-7, Je '03.

What is Going to Become of High School Mathematics?, by Walter H. Carnahan. 45: 463-9, My '45.

What is Practical Mathematics?, by David H. Moskowitz. 19:827-9, De '19.

What is Problem Solving in Arithmetic?, by J. T. Johnson. 46:256-66, Mr '46.

What is the Laboratory Method?, by J. W. A. Young. (Mathematical Supplement) 1:50-6, Je '03.

What Mathematical Equipment Should a High School Graduate Have?, by Fiske Allen. 8: 10-2, Ja '08.

What's Wrong with Mathematics, by Cecil B. Read. 58:181-6, Mr '58.

"Why" and "How," by F. B. Riggs. 26:613-6, Je '26.

Why is the Ability to Recognize Relationships in Reading of Problems So Vital, and What Methods May be Used to Develop this Ability, by Mamie Spangler. 46:448-52, My '46.

Why Mathematics?, by Ruby M. Grimes. 36: 426-37, Ap '36.

Why Study Mathematics?, by Bjarne R. Ullsvik. 49:302-8, Ap '49.

Why Teach Mathematics?, by Nelson A. Jackson. 40:338-43, Ap '40.

Youth Speaks for Mathematics, by Edith F. Whitmer. 40:41-6, Ja '40.

Evaluation

A Mathematics Contest - Its Relation to the General Problem of Individual Differences, by Raleigh Schorling. 15:794-7, De '15.

A New Marking System and Means of Measuring Mathematical Abilities, by Florian Cajori. 14:283-93, Ap '14.

A Short Test for Geometry Teachers, by John P. Hoyt. 41:384, Ap '41.

A Study of Examinations and Tests, by Mabel W. Arleigh. 20:629-31, O '20.

A Symbol Test in Mathematics, by John Spade. 52:284, Ap '52.

An Algebra Test, by James David Teller. 34: 496-7, My '34.

An Experiment in the Diagnosis and Remedy of Errors of College Freshmen in Arithmetic and Radicals, by E. A. Habel. 51:105-13, Fe '51.

An Objective Test in Logarithms, by Laura Blank. 32:407-10, Ap '32.

Bases of Instruction in Elementary Algebra, by Leonard D. Haertter. 31:305-13, Mr '31.

Final Examinations, by Wm. Asker. 23:867-9, De '23.

Grading Papers in Geometry, by Nelson A. Jackson. 17:483-7, Je '17.

Helping the Student to Follow His Own Progress, by Paul E. Clark. 38:452-4, Ap '38.

Hurdle Tests in Algebra, by Kate Wentz. 25: 132-44, Fe '25.

Mathematical Ability as Related to General Intelligence, by B. R. Buckingham. 21:205-15, Mr '21.

New Type Tests in High School Mathematics, by John P. Everett. 31:665-75, Je '31.

Objective Measurements of the Result of Solid Geometry Testing, by W. T. Wait. 27: 969-74, De '27.

Objective Testing in Secondary School Mathematics, by Laura Blank. 34:702-8, O '34.

Reliability of Grades of Test Papers in Mathematics, by D. W. Weeremeyer. 14:422-9, My '14.

Short Tests in Mathematics, by R. F. Graesser. 58:65-6, Ja '58.

Some Experiments in Geometry Examinations Etc., by W. M. Fishback. 17:678-9, N '17.

Teaching Verbal Problems in First Year Algebra, by George E. Hawkins. 32:655-60, Je '32.

Testing the Clarity of Mathematical Concepts, by William L. Schaaf. 39:651-6, O '39.

Tests of Mathematical Ability and Their Prognostic Values. A Discussion of the Rogers Tests, by L. E. Mensenkamp. 21: 150-62, Fe '21.

The Construction of a Test to Measure Mathematical Ability, by Charles A. Stone. 26: 824-32, N '26.

The Evaluation Program in Secondary Mathematics, by William David Reeve. 40:216-28, Mr '40; and 55:123-40, Fe '55.

The Mechanical Processes in Introductory Calculus and Analytical Geometry, by Blandena C. Couillard. 26:921-30, De '26.

The Traditional Examination, by Jane Pollock Anderson. 14:193-204, Mr '14.

The Use of a Readiness Test in Teaching a Unit on Signed Numbers, by Clarence E. Olander. 57:131-8, Fe '57.

The Value of Standards in Teaching Arithmetic, by G. W. Finley. 15:422-5, My '15.

Laboratory Activities

A Laboratory Approach to Intermediate Algebra, by James W. Beach. 42:615-6, O '42.

Auxiliary Procedures for Increasing Inherent Interest, Motivation and Individual Efficiency in Geometry and Algebra, by George W. Myers. 30:996-1004, De '30.

Field Work Modifies Our Program in Arithmetic, by E. W. Hamilton. 51:527-31, O '51.

Geometry A Laboratory Science, by Wm. A. Austin. 24:58-71, Ja '24.

Mathematical Fallacies, by Cecil B. Read. 33:585-9, Je '33.

Mathematical Laboratories, by Karl Goldziher. 8:753-7, De '08.

Misplaced Mathematical Recreations, by M. C. Bergen. 39:766-8, N '39.

Recreational Mathematics as It May be Used with Secondary School Pupils, by Louis Grant Brandes. 54:383-93, My '54.

Recreational Mathematics for the Mathematics Classrooms of Our Secondary Schools, by Louis Grant Brandes. 54:617-27, N '54.

Some Experiences in Laboratory Mathematics and Their Results, by Franklin Turner Jones. 5:406-10, Je '05.

The Laboratory Approach to Mathematics, by Weldon Sims and Albert Oliver. 50:621-7, N '50.

The Mathematical Laboratory, by C. E. Comstock. (Mathematical Supplement) 1:14-20, Ap '03.

The Mathematics Laboratory, by Mary A. Potter. 44:367-73, Ap '44.

The Teaching of Algebra by the Laboratory Method, by Charles W. Newhall. 5:40-5, Ja '05.

Utilizing Pupil Experiences in Their Discovery of Mathematics, by Paul Trump. 46: 521-7, Je '46.

Why Use Recreational Mathematics in Our Secondary School Mathematics Classes?, by Louis Grant Brandes. 54:289-93, Ap '54.

Mathematics for Engineering

Analysis of the Required Undergraduate Mathematics Courses for Engineering Students, by Otto J. Karst. 55:29-39, Ja '55.

Applied Engineering Mathematics, by John Parmakian. 50:5-15, Ja '50.

High School Mathematics in College Engineering, by George A. Whetstone. 50:725-30, De 50.

The Teaching of Mathematics as Viewed by an Engineer, by Vernon G. Lippitt. 44:505-10, Je '44.

Research Reports

A Comparative Study of the Scholarship Records of Students Who Major in Mathematics, by R. L. Morton and Leslie Haynes Miller. 36:965-7, De '36.

A Comparison of I.Q. and Achievement in Plane Geometry, by Vivian L. Hummer. 36: 496-50, My '36.

A Comparison of the Analytic and Synthetic Methods of Teaching Geometry, by Lemuel Pitts and Robert A. Davis. 31:333-9, Mr '31.

A Comparison of Two Methods of Teaching First Year High School Algebra, by Richard Edw. Gadske. 33:635-40, Je '33.

A Consideration of Pupils' Success with Two Methods for Placing the Decimal Point in the Quotient, by Frances Flournoy. 59:445-55, Je '59.

A Report of One Technique of Individualized Instruction in Ninth-Year Algebra, by C. N. Stokes. 27:129-36, Fe '27.

A Study of Achievement by Entering College Freshmen with Reference to Specific Elements of Knowledge in Geometry, by Lynn L. Ralya. 42:14-6, Ja '42.

A Study of Achievement in General Mathematics, by Jane M. Crow and August Dvorak. 29:21-6, Ja '29.

A Study of Individual Differences as They Affect Mathematics Classes, by Mabel Sykes. 31:248, Fe '31.

A Study of Remedial Arithmetic Conducted with Ninth Grade Students, by Allen Bernstein. 56:25-31, Ja '56; and 56:429-37, Je '56.

A Study of Student Achievement in Mathematics, by Edwin C. Dodson. 14:430-5, My '14.

A Study of the Double Track Program of Mathematics in the Secondary Schools of Kansas, by Kenneth E. Anderson and Lyle J. Dixon. 52:637-40, N '52.

A Study of the Illustrative Material Found in Ten Biology Texts, by Glenn Stiles. 24: 511-2, My '24.

A Study of the Performance of Selected Pupils in General Mathematics in Negro High Schools of Louisiana, by Rogers E. Randall. 53:552-4, O '53.

A Study of the Relative Effectiveness of Group Instruction, by Donovan A. Johnson. 56:609-16, N '56.

A Systematic Procedure in the Development of a Learning Unit in Mathematics, by Charles A. Stone. 27:691-701, O '27.

A Technique for the Prevention of Errors in Arithmetic, by Renato Mazzei. 59:493-7, Je '59.

Abilities of University Students in Freshman Mathematics, by M. W. Keller and R. D. Shreve. 42:38-46, Ja '42.

Academic Backgrounds of Kansas Mathematics Teachers, by John M. Burger. 60:139-42, Fe '60.

Achievement of Students in College Algebra Compared With the Number of Semesters of Preparation in High School, by M. C. Bergen. 38:763-5, O '38.

An Analysis of Mathematics Courses in Four Year Colleges, by C. B. Read and A. E. Klein. 55:40-55, Ja '55.

An Experiment in Adding, by C. G. Bradford. 16:328-36, Ap '16.

An Experiment in Fusing Plane and Solid Geometry, by H. Vernon Price. 49:199-203, Mr '49.

An Experiment in the Diagnosis and Remedy of Errors of College Freshmen in Arithmetic and Radicals, by E. A. Habel. 51:105-14, Fe '51.

An Experiment in the Mound City (Mo.) Public Schools in Arithmetic Teaching, by Byron Cosby. 11:629-34, O '11.

An Experiment with a Different Textbook, by E. D. Burton. 39:529-32, Je '39.

An Experimental Comparison of Two Methods of Teaching Elementary Algebra, by Marguerite Linn. 34:983-5, De '34.

An Experimental Study of Two Plans of Supervised Study in First Year Algebra, by Burton J. Stallard and Harl K. Douglass. 36:78-81, Ja '36.

An Investigation in the Teaching of the Skills of Ninth Grade Algebra, by Raleigh Schorling and Selma A. Lindell. 25:813-5, N '25.

Aptitude and Ability in Elementary Algebra, by Herschel E. Grime. 47:781-4, De '47.

Are Films and Filmstrips Effective in Teaching Geometry, by Donovan A. Johnson. 50: 570-4, O '50.

Are High Schools Underemphasizing Trigonometry?, by Willard Geer. 49:72-5, Ja '49.

Are We Trying to Force Mathematical Maturity?, by Sister Mary Jacqueline Perreault, O.P. 57:515-22, O '57.

Background and Mathematical Achievements of Elementary Education Students in Arithmetic for Teachers, by Clarence Phillips. 53:48-52, Ja '53.

Bridging the Gap Between Theory and Practice in Ninth Grade Mathematics, by Wm. Herbert Edwards. 28:864-6, N '28.

Can Concepts in Elementary Mathematics be Developed?, by John T. Johnson. 44:146-54, Fe '44.

Checking the Results of Classification in Nine First Year Algebra Classes by Means of the Hotz Algebra Scales, by Edwin W. Schreiber. 24:614-22, Je '24.

College Student's Knowledge of Plane Geometry, by H. J. Arnold. 30:894-900, N '30.

Comparing the Effect of Arithmetic and General Mathematics Training in the Seventh and Eighth Grades Upon Achievement in Ninth-Grade General Mathematics, by C. N. Stokes. 31:853-7, O '31.

Comparison of Grades in College Trigonometry Between Students Who Had the High School Course and Those Who Did Not, by M. C. Bergen. 39:273-4, Mr '39.

Comparison of Varied Curricular Practices in Mathematics, by J. Wayne Wrightstone. 35:377-81, Ap '35.

Concepts for Certain Functional Mathematics Courses, by William A. Gager. 50:533-9, O '50.

Course Patterns in Mathematics Studied by High School Students, by John W. Renner. 55:644-50, N '55.

Courses Desirable for Training Teachers of High School Mathematics - An Analysis of Teacher Preferences, by G. R. Thacker and C. B. Read. 49:611-9, N '49.

Current Trends in Junior High School Mathematics, by William L. Schaaf. 35:959-69, De '35.

Diagnosis and Training in Advanced High School Algebra, by Robert W. Yingling. 26: 729-34, O '26.

Diagnostic and Remedial Review of the First Three Semesters of Algebra, by W. J. Klopp, Leslie J. Nason, and Karl K. Heilman. 29: 639-43, Je '29.

Difficulties in Algebra: A Study, by G. H. Miller. 58:714-20, De '58.

Do Algebra Students Need Remedial Arithmetic?, by George A. Boyce. 28:946-50, De '28.

Do High School Pupils Dislike Mathematics?, by W. G. Gingery. 21:674-5, O '21.

Do We Need Refresher Mathematics?, by Albert R. Mahin. 46:471-9, My '46.

Does the Arithmetic in Algebra Textbooks Prepare for Trigonometry, by E. A. Habel. 51:488-91, Je '51.

Educational Procedure in Mathematics is Misdirected, by J. Donald Watson. 35:799-801, N '35.

Essential Vocabulary in Algebra, by S. L. Pressey, L. C. Pressey, and F. R. Narragon. 32:672-4, Je '32.

Evaluating Appreciation of the Cultural Values of Mathematics, by Maurice L. Hartung. 37:168-81, Fe '37.

Further Study of the Relative Efficiency of Two Methods of Approximating the Roots of an Algebraic Equation, by Cecil B. Read. 38: 264-70, Mr '38.

Geometry in the Junior High School, by J. T. Johnson. 25:611-7, Je '25.

High-School Mathematics Units and Success in a College of Education, by Wilbur Waggoner. 58:650-4, N '58.

How Mathematically Literate is the Typical Ninth Grader After Having Completed Either General Mathematics or Algebra?, by Milton W. Beckmann. 52:449-55, Je '52.

How Much Progress in Secondary School Geometry?, by Jos. S. Butterweck. 37:911-9, N '37.

Junior College Mathematics, by E. Justin Hills. 29:880-5, N '29.

Learning Fractions, by Myrtie Collier. 22: 121-7, Fe '22.

Learning in First Year Algebra, by Nelson A. Jackson. 31:980-7, N '31.

Library Research - A Study in Remedial Arithmetic, by Allen Bernstein. 59:185-95, Mr '59.

Logarithms Versus Cologarithms, by Cecil B. Read. 36:981-5, De '36.

Mathematical Concepts in Current Literature, by Frank C. Touton. 23:648-55, O '23.

Mathematics Capability and Employment Opportunities, by Wilbur Heisey. 57:730-3, De '57.

Mathematics for a Four-Year Course for Teachers in the Elementary School, by E. H. Taylor. 38:499-503, My '38.

Mathematics Offered to Commerce and Administration Students in Junior Colleges, by W. H. Clark. 41:340-5, Ap '41.

Multi-Sensory Aids in Mathematics, by Henry W. Syer and Peter J. Ingeneri. 49:134-40, Fe '49.

Note on Demons of Elementary Mathematics, by Mabel Sykes. 29:533, My '29.

Predicting Accomplishment in Plane Geometry, by Robert A. Davis and Marguerite Henrick. 45:403-5, My '45.

Predicting Achievement in Plane Geometry, by Dennis H. Cooke and John M. Pearson. 33: 872-8, N '33.

Prolate and Curtate, by A. H. Beiler. 43: 848-51, De '43.

Relative Efficiency of Two Methods of Approximating the Roots of an Algebraic Equation, by Cecil B. Read. 35:30-4, Ja '35.

Relative Prominence of Natural Science and Mathematics Subjects, by S. Z. Scott. 28: 398, Ap '28.

Report of an Experiment in Correlated Mathematics in a Large High School, by Paul R. Pierce. 25:681-4, O '25.

Results of an Inventory Test, by Marvin C. Volpel. 42:188-9, Fe '42.

Review of Research Related to the Teaching of Arithmetic in the Upper Elementary Grades, by Frances Pikal. 57:41-7, Ja '57.

Seventh Graders' Ability to Solve Problems, by Vincent E. Alexander. 60:603-6, N '60.

Some Practices Used in Counseling Students Prior to Enrollment in Elementary Algebra and Plane Geometry, by David J. Blick and Shirley E. Braman. 54:107-15, Fe '54.

Specific vs. General Drill in the Fundamentals of Arithmetic in Grade Four, by L. D. Morgan. 29:528-9, My '29.

Speed and Scholarship vs. Arithmetical Accuracy, by W. W. Ludeman. 25:522-4, My '25.

Teachers' Marks and the Fluctuations of Sampling, by R. F. Graesser. 53:227-9, Mr '53.

The Ability of College Freshmen to Read Mathematics Texts Independently with Understanding, by Albert E. Filano. 57:16-8, Ja '57.

The Case Against High School Mathematics, by Mabel Sykes. 17:667-76, N '17.

The Content of a Junior College Course in Mathematics for the Purpose of General Education, by Lauren G. Woodby. 53:717-25, De '53.

The Crucial Place of Seventh and Eighth Grade Mathematics in Education for Competency, by H. C. Christofferson. 41:55-62, Ja '41.

The Demons of Elementary Mathematics, by Wilbur A. Coit. 29:50-8, Ja '29.

The Effects of Exploratory Mathematics Upon Formal Algebra, by Bernard J. Kohlbrenner and Leland S. Walker. 32:48-52, Ja '32.

The Elements of Plane Geometry in Plane Trigonometry, by Hobson M. Zerbe. 30:1020-4, De '30.

The Essential Technical Vocabulary of Plane Geometry, by S. L. Pressey, L. C. Pressey, and R. C. Zook. 32:487-9, My '32.

The Factor of Interest in the Teaching of Mathematics, by Margaret Joseph. 40:201-7, Mr '40.

The Mathematics Survey of the Chicago School System, by Mabel Sykes. 15:120-6, Fe '15.

The Measurement of High School Mathematics, by S. A. Courtis. 18:507-26, Je '18.

The Needs of Freshmen in the Field of Mathematics, by Luella Cole Pressey. 30:238-43, Mr '30.

The Place of Geometric Constructions in Plane Geometry, by Adrien L. Hess. 55:594-8, N '55.

The Place of Plane Geometry in the Secondary School Curriculum, by Charles A. Stone. 37:72-6, Ja '37.

The Professional Treatment of Freshman Mathematics in Teachers Colleges, by Eucebia Shuler. 37:464-72, Ap '37.

The Relationship Between Silent Reading Ability and Arithmetical Ability, by Esther A. Coffing. 41:10-4, Ja '41.

The Relationship of the Study of Mathematics to Q-Scores on the ACE Psychological Examination, by Melvin W. Barnes. 43:581-2, Je '43.

The Relative Values of Unified and Correlated Mathematics in Presenting the Fundamental Operations, by Raymond R. Wallace. 28:740-7, O '28.

The Respective Abilities of Boys and Girls in Learning Geometry, by Laura Blank. 33:129-33, Fe '33.

The Selection of Mathematics Texts in the Junior High School, by Robt. L. Williams. 31:284-91, Mr '31.

The Status of Mathematics in Secondary Schools, by Alfred Davis. 18:25-35, Ja '18.

The Study of Mathematics Under the Individual System, by Mary M. Reese. 23:133-8, Fe '23.

The Teaching of Mathematics in the Normal Schools of the United States. 12:213-24, Mr '12.

The Teaching of Mathematics in the Private Secondary Schools of the United States, by William E. Stark (Chrm.). 11:133-54, Fe '11; and 11:225-41, Mr '11.

The Value and Method of the Historical Element in the Teaching of Secondary Mathematics, by J. T. Vallandingham. 21:817-22, De '21.

The Value of the Hotz Algebra Scales in Sectioning College Classes in Freshman Mathematics, by Hazel E. Schoonmaker. 28:880-4, N '28.

The Vocational Uses of Elementary High School Algebra, by George E. Hill. 32:641-3, Je '32.

The Workbook in Mathematics, by Charles A. Stone. 35:382-7, Ap '35.

Trends in High School Mathematics, by Alvin W. Johnson. 36:468-70, My '36.

Trigonometric Formulae Encountered in a College Engineering Course, by Wm. Herbert Edwards. 28:239-43, Mr '28.

Two Experiments on Grammar School Graduates, by Peter G. Gartland. 11:155-9, Mr '11.

Typical Divisions of Ninth Year Algebra, by Joseph J. Urbancek. 34:743-51, O '34.

Vocabulary in Beginning Algebra, by Nelson A. Jackson. 35:690-4, O '35.

What Laboratory Equipment for Elementary and High School Mathematics?, by F. H. Gorman. 43:335-44, Ap '43.

Words and Things: Prolate and Curtate Cycloids, by Alejandro Terracini. 44:526-9, Je '44.

Teachers

A Note on "The Training of Mathematics Teachers," by Cecil B. Read. 55:392, My '55.

Algebra in the Training of Teachers, by W. R. Utz. 54:10-2, Ja '54.

Are Beginning Teachers of High School Mathematics Adequately Trained?, by W. G. Gingery. 40:703-7, N '40.

Arithmetics for Arithmetic Teachers, by William L. Schaaf. 53:537-43, O '53.

Bill of Rights of Teachers of Secondary Mathematics. 45:784-5, N '45.

Collegiate Courses in Mathematics for Prospective High School Teachers, by M. O. Tripp. 23:482-8, My '23.

Preparation of Teachers of Arithmetic, by David Rappaport. 58:636-43, N '58.

Preparation of Teachers of Mathematics for Junior High Schools, by J. R. Overman. 23: 842-52, De '23.

Promising Practices in Mathematics Teacher Education, by John A. Brown. 58:25-40, Ja '58; and 58:435-44, Je '58.

Some Group Theory, by G. A. Miller. 18: 675-80, N '18.

Special Training for Teachers of Arithmetic, by J. R. Mayor. 49:539-48, O '49.

Suggestions for the Prospective Mathematician, by G. A. Miller. 14:26-30, Ja '14.

The College Mathematics Teacher, by Marc A. Laframboise. 58:108-10, Fe '58.

The Education of Secondary and Collegiate Teachers of Mathematics, by Marc A. Laframboise. 60:267-8, Ap '60.

The Preparation of Teachers of General Mathematics, by G. H. Jamison. 45:249-56, Mr '45.

The Preparation of Teachers of Mathematics for Junior and Senior High Schools, by William B. Aspinwall. 37:651-7, Je '37.

The Preparation of the Teachers of Mathematics in Secondary Schools, by David Eugene Smith. 7:247-53, Ap '07.

The Teacher of Mathematics, by Henry L. Coar. 7:282-9, Ap '07.

The Training of Mathematics Teachers, by Marc A. Laframboise. 55:389-92, My '55.

The Training of Mathematics Teachers, by G. A. Miller. 15:1-12, Ja '15.

The Training of Teachers of Mathematics in the Secondary Schools of the United States, by Alva W. Stamper. 10:283-9, Ap '10.

Why Didn't They Tell Me?, by Cecil B. Read. 58:430-1, Je '58; 58:554-7, O '58; and 58: 695-6, De '58.

Teaching Techniques

A and B on the Job, by William R. Ransom. 54:219-23, Mr '54.

A Chapter in Elementary Trigonometry, by W. H. Jackson. 9:875-82, De '09.

A Check in Addition, by E. Lunn. 17:364-5, Ap '17.

A Class of Content-Problems for High School Algebra, by G. W. Meyers. 7:19-33, Ja '07.

A Class Project in Comparative Anatomy, by John P. Wessel. 38:278-80, Mr '38.

A Color Scheme for Figures in Solid Geometry, by M. C. Spencer. 10:549, Je '10.

A Complex Quantity Slide Rule, by G. R. Shuck. 45:862-4, De '45.

A Condensed Table of Squares, by Enoch J. Haga. 60:729-32, De '60.

A Contribution to the Teaching Technique, by J. S. Georges. 28:353-6, Ap '28.

A Convenient Rule for Locating the Decimal Point in Slide Rule Calculations, by Loyd C. Elliott. 26:957-9, De '26.

A Cryptic Christmas Greeting, by A. M. Tucker. 46:793-4, De '46.

A Curious Problem in Probability, by R. F. Graesser. 57:72-3, Ja '57.

A Curriculum Unit on Non-Euclidean Geometry, by Claude H. Brown. 40:128-36, Fe '40.

A Development of a Mathematical Expression for the Liquidation of an Indebtness by a Constant Arbitrary Payment p, by Ethelbert W. Haskins. 57:53-8, Ja '57.

A Device as an Aid in Teaching the Idea of Tens, by Herbert F. Spitzer. 42:65-8, Ja '42.

A Device for Measuring Understanding of the Meaning of Units of Measure, by Joyce M. Burchenal. 58:601-4, N '58.

A Device to Aid in Generalizing Geometrical Ideas, by Henry Kemmerling. 27:606-9, Je '27.

A Dial-A-Factor, by Ethel L. Grove, Charles E. Scott, and Ewart L. Grove. 50:741-2, De '50.

A Direct Proof of the Addition Formula for Tangents, by L. H. McFarlan. 45:837-8, De '45.

A Fairy Tale, by Zoe Ferguson. 17:152-3, Fe '17.

A Family of Numbers, by Robert E. Fleming. 54:410-3, My '54.

A Few Live Projects in High School Mathematics, by Frank M. Rich. 20:34-45, Ja '20.

A First-Day Suggestion for General Mathematics, by Elmo N. Stevenson. 45:493-6, Je '45.

A General Formula for Magic Squares for Various Orders Beginning with Numbers Different from Unity, by L. R. Posey. 40:315-9, Ap '40.

A General Test for Divisibility by a Prime, by N. A. Goldsmith. 51:317-8, Ap '51.

A Geometric Derivation of Formulas for Tan $(\alpha + b)$ and Tan $(\alpha - b)$, by William R. Ransom. 46:139-40, Fe '46.

A Geometric Proof of Half Angle Formulas of Triangle ABC by Means of an Escribed Circle, by Benjamin Greenberg. 59:682-5, De '59.

A Geometric Recreation, by Isabel Harris. 20:731-3, N '20.

A Geometrical Discussion of the Gravitational Law of Inverse Squares, by Morley F. Fox. 47:739-42, N '47.

A Geometry Pupil's Brilliant Work, by George W. Evans. 6:595-6, O '06.

A Graphical Solution of the Quadratic Equation, by Albertus Darnell. 11:46-7, Ja '11.

A Homemade Planimeter for Class Room Use, by Ernest W. Ponzer. 11:242-5, Mr '11.

A Homemade Transit, by William F. Goins, Jr. 45:766-8, N '45.

A Living Theorem, by Frances B. Hatcher. 16:39-40, Ja '16.

A Machine for Trisecting Angles, by Alfred H. Thiessen. 14:236, Mr '14.

A Math Circus, by Paul W. Lehmann. 47:560-3, Je '47.

A Mathematical Anti-Gambling Argument, by Harry M. Roeser. 16:432-4, My '16.

A Mathematical Contest, by Edgar T. Boughn. 17:329-30, Ap '17.

A Mathematical Cross Word Puzzle, by H. C. Cosard. 26:316-8, Mr '26.

A Mathematical Fantasy, by Elizabeth B. Cowley. 33:535-6, My '33.

A Mathematical Victory, A Play in Two Acts, by Students at the Los Angeles State Normal School of California. 17:475-82, Je '17.

A Mathematics Cross-Word Puzzle, by Frederick A. Keniston. 25:302-3, Mr '25.

A Mathematics Room that Speaks for Itself, by Edith L. Mossman. 33:423-30, Ap '33.

A Mathematics Tournament, by Bernard Friedman. 42:523, Je '42.

A Method for Deriving Formulas of Rotation, by Robert G. Fussell. 32:155, Fe '32.

A Method of Computing Cube Root, by D. E. Davis. 17:150-1, Fe '17.

A Method of Computing Square Root, by M. W. Arleigh. 16:750, N '16.

A Method of Demonstrating and Teaching the Trigonometric Functions, by S. C. Mitchell. 17:245-7, Mr '17.

A Method of Determining the Sign and Value of 1^n, Where 1 Equals $\sqrt{-1}$ and N is any Rational Positive Integer Equal to, Or Greater than Two, by L. R. Posey. 34:812-5, N '34.

A Method of Finger Multiplication, by E. J. Rendtorff. 8:580-1, O '08.

A Model of the Conic Sections, by Frank Hawthorne. 51:299-300, Ap '51.

A Model of the Five Regular Polyhedra, by Frank Hawthorne. 52:125-6, Fe '52.

A New Formula for Combinations, by Kaidy Tan. 47:762, De '47.

A New Installment Buying Interest Formula, by Lee Emerson Boyer. 54:155-6, Fe '54.

A New Method for Extraction of Algebraical Square Root, by Kaidy Tan. 47:745-6, N '47.

A New Method for Finding Square Root, by John L. Leonard. 50:40-8, Ja '50.

A New Method of Producing Lissajou's Figures, by L. V. Case. 5:731-5, De '05.

A New Proof of the Pythagorean Theorem, by Ann Condit. 40:379-80, Ap '40.

A Nomograph Based on Soap Bubble Geometry, by Lowell T. Van Tassel. 57:689-93, De '57.

A Non-Commutative Algebra, by Clarence R. Perisho. 58:727-30, De '58.

A Notation for the Geometry of the Sphere, by Howard F. Hart. 9:918, De '09.

A Note - An Extension of the Pythagorean Theorem, by Henry A. Converse. 7:778, De '07.

A Note on Errors Resulting from Transposition of Digits, by Cecil B. Read. 40:498, My '40.

A Note on Long Division, by Harold D. Larsen. 44:578, Je '44.

A Note on Negatives, by Frank H. McMackin. 20:640-1, O '20.

A Note on "Notes" from a Mathematics Classroom, by Cecil B. Read. 43:780-1, N '43.

A Note on Parametric Equations, by Cecil B. Read. 41:178-9, Fe '41.

A Note on Simple Interest, by James K. Hitt. 40:873-5, De '40.

A Note on Solving an Irrational Equation, by Albert Babbitt. 17:433-4, My '17.

A Note on the Graphing of the Equation Homogeneous in X and Y, by D. R. Shreve and M. W. Keller. 40:48-50, Ja '40.

A Note on the Law of Sines, by Albert Babbitt. 17:434-5, My '17.

A Note on the Limit of the Sum of an Infinite Geometrical Series, by Albert Babbitt. 15:247, My '15.

A Note on the Representation and Evaluation of Powers of i, Where $i = \sqrt{-1}$, by G. D. Gore. 35:476-8, My '35.

A Note on the Rotation of Axes, by Ralph Mansfield. 41:378-9, Ap '41.

A Note on the Sketching of the General Hyperbola, by D. R. Shreve and M. W. Keller. 40:248-50, My '40.

A Note on the Sketching of the General Parabola, by D. R. Shreve and M. W. Keller. 39:812-3, De '39.

A Note on the Use of Directed Lines in Trigonometry, by Cecil B. Read. 42:374-6, Ap '42.

A Note on Transformation of Coordinates, by C. B. Read and Ferna Wrestler. 50:559, O '50.

A Note on Transversals in Triangles, by John Satterly. 57:479-84, Je '57.

A Note to Trigonometry Teachers, by Mabel Sykes. 25:800, N '25.

A Parabola Scheme, by William R. Ransom. 59:135-7, Fe '59.

A Paradox in Congruent Triangles, by R. M. Matthews. 16:248-9, Mr '16.

A Popular Fallacy, by Brother T. Brendan, F.S.C. 59:509-3, O '59.

A Practical Three-Dimensional Graph, by Franklin Miller, Jr. 34:919-22, De '34.

A Problem in Elimination, by Albert Babbitt. 15:246-7, Mr '15.

A Problem in Regular Polygons, by M. H. Pearson. 18:368-9, Ap '18.

A Problem in Simple Interest, by A. R. Jerbert. 46:231-3, Mr '46.

A Proof of the Law of Cosines, by C. W. Trigg. 54:370, My '54.

A Proof of the Theorem of Pythagoras, by Bernard M. Goldman. 43:781-2, N '43.

A Proposed Trip - A Teaching Technique, by Herbert J. Schiff. 55:393-4, My '55.

A Quadrilateral Teaching Device for Geometry Students, by Stanley B. Brown and Robert S. Armstrong. 58:506-8, O '58.

A Question About Angle Bisectors, by A. R. Amir-Moéz. 60:25-6, Ja '60.

A Rational Presentation of the Subtraction in Elementary Algebra, by Susie B. Farmer. 34:515-22, My '34.

A Rose Linkage, Trisection, and the Regular Heptagon, by Robert C. Yates. 39:870-2, De '39.

A Rule to Square Numbers Mentally, by Robert C. Colwell. 14:71, Ja '14.

A Rule to Square Numbers Mentally, by L. C. Karpinski. 15:20-1, Ja '15.

A Second Note on the Solution for the Equation, $\frac{a}{x} + \frac{b}{x} = c$ for $x = y = o$, by M. O. Tripp. 8:56-7, Ja '08.

A Short Method of Long Division, by Theron V. Morrison. 52:684-6, De '52.

A Simple and Effective Method of Solving a Polynomial, by C. H. Forsyth. 15:802-4, De '15.

A Simple Geometrical Proof of the Law of Tangents, by Clifford N. Mills. 16:607, O '16.

A Simple Method of Rectifying Small Circles, by Lewis W. Colwell. 42:419-20, My '42.

A Simple Optical Device for Demonstrating the Conic Sections, by Everett H. Hurlburt. 41:828-31, De '41.

A Simple Rule for Extracting any Root of a Number, by Otto Dunkel. 18:19-20, Ja '18.

A Six-Sided Hexagon, by William R. Ransom. 52:94, Fe '52.

A Slide Rule for Class Room Use, by Ernest W. Ponzer. 10:776-84, De '10.

A Slide Rule for Quadratic Equations, by I. C. Barker. 35:811-3, N '35.

A Special Method in Mensurational Geometry, by Sister Mary Gerard. 31:987-8, N '31.

A Special Method to Multiply a Number Divisible by 7, by 43, by Dwight S. Wiseman. 8: 253-4, Mr '08.

A Study for the Teacher Who Wishes to Invent an Algebra Problem, by William F. H. Godson, Jr. 31:407, Ap '31.

A Style Form Guide for Typewritten Mathematical Manuscripts, by Cecil B. Read. 55: 550-62, O '55.

A Suggestion for Review in Geometry, by C. A. Peterson. 7:704, N '07.

A Suggestive Approach to the Use of the Functional Notation, by L. E. Lunn. 18:480, My '18.

A Teaching Aid for the Generalized Law of the Mean, by Arthur H. Steinbrenner. 58:9, Ja '58.

A Teaching Unit in Modular Arithmetic for Grade Eight, by Margaret F. Willerding. 60: 511-8, O '60.

A Theorem of Related Triangles, the Centers of Gravity of a Full and Skeleton Triangle, by John Satterly. 57:367-74, My '57.

A Theorem of Solid Geometry, by William E. Patten. 8:22-3, Ja '08.

A 3-D Alphabet, by Lowell Van Tassel. 59: 58-9, Ja '59.

A Trigonometric Interlude, by Robert C. Yates. 40:90, Ja '40.

A Unique Property of the Spherical Hyperbola and the Spherical Parabola, by A. V. Pershing. 35:814-24, N '35.

A Unit on Our Number System, by Donovan A. Johnson. 52:556-61, O '52.

About the Psychological Interpretation of Mathematical Errors, by Elizabeth Helly. 53:307-8, Ap '53.

Absolute Angular Measurement - A Comment, by Cecil B. Read. 51:15, Ja '51.

Addition and Subtraction with Linear Scales as an Introduction to Study on the Slide Rule, by John J. Bowen. 57:626-8, N '57.

Addition by Dissection, by Robert C. Yates. 40:801-7, De '40.

Advertising Solid Geometry with Spectacular Topics, by Glenn F. Hewitt. 44:633-6, O '44.

Again That Quadratic Equation, by Arthur Porges. 44:565-8, Je '44.

Algebra in the High School, by H. L. Terry. 10:573-8, O '10.

Algebra of Complex Numbers, by Herbert E. Vaughan. 59:545-7, O '59.

Algebraic Derivation of the Law of Cosines, by Albert Babbitt. 17:244, Mr '17.

Algebraic Multiplication, by A. Latham Baker. 8:493-5, Je '08.

All Geometrical Construction May be Made with Compasses, by Michael Goldberg. 25: 961-5, De '25.

All in One Day, by Mildred Marie Harman. 55:15-23, Ja '55.

All Parabolas are Similar, by Ray Jurgensen. 54:7-9, Ja '54.

Alternate Formulas for First, Second and Other Moments of an Area, by J. Ray Hanna. 51:286-8, Ap '51.

Alternate Model for Arc and Angle Measurements, by Ethel L. Grove. 51:13-5, Ja '51.

An Aid in Sketching Parabolas, with Applications to Interpolation and Extrapolation, by S. I. Askovitz. 57:209-12, Mr '57.

An Aid to Using the Metric System, by Adrien L. Hess. 59:98, Fe '59.

An Algebra Slide Rule, by Carl H. Denbow. 55:395-6, My '55.

An Algebraic Balance, by F. C. Donecker. 5: 411-5, Je '05.

An Analysis of a Purported Trisection of an Angle with Ruler and Compasses, by H. C. Schepler. 43:467-7, My '43.

An Application of Degenerate Conics, by Ruth B. Rasmusen. 47:502, Je '47.

An Application of Duodecimals, by H. D. Larsen. 55:422-4, Je '55.

An Application of the Hyperbola, by Robert A. Fertig. 48:536-7, O '48.

An Application of the Point-of-Division Formula, by R. F. Graesser. 52:101, Fe '52.

An Approximate Construction for a Regular Enneagon, by Howard Eves. 49:14, Ja '49.

An Approximate Euclidian Trisection, by Joseph P. Harper. 43:812-6, De '43.

An Approximate Solution of a System of Quadratic Equations, by Cecil B. Read. 34:942-4, De '34.

An Approximate Solution of the Problem of the Duplication of the Cube, by A. A. Dmitrovsky. 13:311-2, Ap '13.

An Axiom for the Straight Line, by John James Quinn. 6:525-6, Je '06.

An Endless Thread, by A. N. Tucker. 54:680, De '54.

An Example in Geometrical Analysis, by Professor J. T. Crawford. 22:882-4, De '22.

An Experiment in Teaching Algebra, by Charles A. Epperson. 16:798-90, De '16.

An Experiment in Teaching Solid Geometry, by R. H. Shanks. 32:614-21, Je '32.

An Experimental Construction of the Sine Curve, by Walter V. Burg. 44:467-8, My '44.

An Experimental Determination of e, by R. F. Graesser. 47:9-13, Ja '47.

An Eye for an i, by William R. Ransom. 60:634-5, N '60.

An Illustration of the Multiple Approach to Problem Solving, by Martin Hirsch. 60:709-14, De '60.

An Improved Abacus, by Stella E. Myers. 7:601-3, O '07.

An Interesting Application of Trigonometry, by Walter R. Westphal. 57:735-8, De '57.

An Interesting Equation: Tan 2X = Cot X, by Ray Jurgensen. 54:489-90, Je '54.

An Odd Locus, by A. N. Tucker. 47:512-4, Je '47.

An Optical Illustration of Conic Sections, by Galen Wood Ewing. 38:276-7, Mr '38.

Another Algebraic Balance, by N. J. Lennes. 5:602-5, N '05.

Another Comment, by Robert S. Shaw. 51:15, Ja '51.

Another Encounter with Geometric Series, by Lester Lange. 55:472-8, Je '55.

Another Method of Deriving sin $2a$, sin $3a$, and So On, by Norman Anning. 17:43-7, Ja '17.

Another Proof of the Law of Tangents, by A. M. Harding. 17:151-9, Fe '17.

Another Trisection Fallacy, by Robert E. Moritz. 6:621-2, O '06.

Another Viewpoint on Multiplication of Radicals, by E. R. Stabler. 41:855-60, De '41.

Answer to "Clever Question Beats the Heat," by Julian C. Stanley. 57:77-8, Ja '57.

Apparently Free Insurance, by R. F. Graesser. 57:99-102, Fe '57.

Application of Professional Treatment to Logarithms, by Eucebia Shuler. 37:782-94, O '37.

Application of Professional Treatment to the Quadratic Function, by Eucebia Shuler. 37:536-48, My '37.

Approximate Numbers, by Walter H. Carnahan. 48:728-32, De '48.

Approximate Square and Cube Roots, by J. P. Harper. 39:316-9, Ap '39.

Approximations and Approximation Processes, by E. R. Hedrick. 8:617-25, N '08; and 8:745-52, De '08.

Archimedes, A Mathematical Genius, by Noma Pearl Reid. 41:211-9, Mr '41.

Area of the Hyperbolic Spiral by Elementary Methods, by Otto J. Ramler. 13:346-7, Ap '13.

Arithmetic and Savings, by Fredrick L. Lipman. 14:386-91, My '14.

Base Eight Arithmetic and Money, by E. M. Tingley. 40:503-8, Je '40.

Building Concepts of Two in the Arithmetic Vocabulary, by Lewis R. Fisher. 57:636-8, N '57.

Calculate by Eights, Not by Tens, by E. M. Tingley. 34:395-9, Ap '34.

Can Your Students Talk Mathematics?, by Allen Frederick Strehler. 44:714-6, N '44.

Cancellation - A Result and Not an Operation, by May A. Blodgett. 34:558, My '34.

Cavalieri's Theorem, by Frank Hawthorne. 51:698, De '51.

Change of Base, by L. R. Posey. 46:871-8, De '46.

Circle Tangent to a Given Line and Passing Through Two Given Points, by D. Mazkewitsch. 60:222-3, Mr '60.

Class Room Devices in Teaching Algebra and Geometry, by Joseph A. Nyberg. 24:345-9, Ap '24.

Clever Question Beats the Heat, by Julian C. Stanley. 57:74, Ja '57.

Colored Crayons as an Aid in Teaching Mathematics, by Ada M. Parsons. 14:33-5, Ja '14.

Combinations Involving Similar Objects, by Brother U. Alfred. 45:599-605, O '45.

Comments on Division in Arithmetic, by L. Leland Locke. 9:698, O '09.

Common Pupil Difficulties with Basic Concepts of Logarithms, by Harry T. Pillans. 39:763-5, N '39.

Com (n) ics, by Norma Sleight. 50:525-6, O '50.

Comparison of the Fundamental Operations, by Fannie Webster. 5:80-3, Fe '05.

Comparison of the Semi-Logarithmic with the Cummulative Chain-Percentage Chart, by C. B. Allen. 38:444-50, Ap '38.

Compass Geometry, by Walter H. Carnahan. 32:384-90, Ap '32.

Concerning I^n, by D. H. Richert. 35:191, Fe '35.

Concerning Loci, by Rose Standish Hardwick. 12:605-9, O '12.

Concrete Interpretations of Directed Numbers, by Merton Taylor Goodrich. 34:623-35, Je '34.

Conducting a Semester's Review in Ninth-Year Algebra, by Kitty Turley. 27:827-31, N '27.

Conics Are Fun, by Norma Sleight. 45:787-91, De '45.

Conics for Thanksgiving, by Clarence R. Perisho. 57:640-1, N '57.

Constructing the Common Crossnumber Puzzle, by Louis Grant Brandes. 57:89-97, Fe '57.

Construction of a Demonstration Slide Rule, by Earl C. Rex. 40:161-4, Fe '40.

Construction of a Teaching Aid for Nine Points Circle, by Shri. M. R. Lokre. 56: 459-65, Je '56.

Construction of Conic Sections by Paper-Folding, by Alfred J. Lotka. 7:595-7, O '07.

Construction Work in Solid Geometry, by Edwin W. Schreiber. 19:407-13, My '19.

Constructive Methods in Geometry, by Arnold Emch. 23:1-8, Ja '23.

Cooperative Class Work in Ninth Grade Algebra, by Johanna Geil. 36:643-6, Je '36.

Cooperative Mathematics Helps Introduce the Formula, by Fletcher Durell and Thomas J. Durell. 31:1105-11, De '31.

Cross-Figure Puzzle, by Jessie R. Smith. 45:580-3, Je '45.

Cutting Stars and Regular Polygons for Decorations, by Barbara B. Betts. 50:645-9, N '50.

Definitions in Geometry, by Robert R. Goff. 16:679-80, N '16.

Deriving the Quadratic Formula, by Walter I. Murray. 38:785-6, O '38.

Developing a Concept of Proportion Before Presenting the Formal Work, by T. L. Engle. 32:268-71, Mr '32.

Developing Ability to Solve the Verbal Problem: The Basic Aim of the Ninth Grade Course, by Elsie G. Parker. 19:599-604, O '19.

Developing an Understanding of Place Value in Second and Third Grade Arithmetic, by H. Van Engen. 45:409-12, My '45.

Developing and Understanding of Our Number System Through Place Value, by John A. Morton. 45:870-3, De '45.

Development Work in Arithmetic, by Myrtie Collier. 14:294-7, Ap '14.

Dice Probabilities and the Game of "Craps," by Ernest E. Blanche. 49:625-30, N '49.

Differentiated Assignments, by Mabel Sykes. 32:863-9, N '32.

Dimensional Analysis, by Bernard E. Leventhal. 49:374-6, My '49.

Dimensions and Units, by Hugh H. Hyman. 51: 689-91, De '51.

Discipline in Numbers - A Way to Stimulate the Gifted, by Ali R. Amir-Moéz. 59:599-600, N '59.

Discovery of the Indirect Method of Proof in Geometry, by Wesley W. Maiers. 60:273-5, Ap '60.

Discussing Division by O, by R. C. Jurgensen. 42:339-41, Ap '42.

Divisibility of Numbers and Algebraic Division, by M. O. Tripp. 28:268-71, Mr '28.

Divisibility Tests, by William R. Ransom. 57:208, Mr '57.

Division by Zero, by A. R. Jerbert. 49:484-8, Je '49.

Division in Arithmetic, by J. A. Courtis. 9:498, My '09.

Does Ft. x Ft. = Sq. Ft.?, by G. W. Myers. 27:69-74, Ja '27.

Does the Law $\sqrt{a}\sqrt{b} = \sqrt{ab}$ Hold for Imaginary Numbers? Does It Hold at All?, by Michael A. Sadowsky. 41:128-30, Fe '41.

Does Unity Divided by Zero Equal Infinity?, by Cecil B. Read. 52:736, De '52.

Dramatizing Mathematics, by Margaret F. Willerding. 60:99-104, Fe '60.

Drawing with Ruler and Paper, by Adrian Struyk. 45:211-4, Mr '45.

Dualistic Properties Found in Linear Equations, by R. L. Short. 5:273-6, Ap '05.

"e", by Robert A. Fertig. 58:148-52, Fe '58.

Economy in Learning, by W. A. Ownbey. 53:490-2, Je '53.

Effective Methods of Teaching Subtraction of Signed Numbers, by Charles A. Stone. 29:850-8, N '29.

Elementary Derivation for Complex Exponent, by William R. Ransom. 48:127-8, Fe '48.

Endless Numbers, by Donald V. Mitchell. 55:509-15, O '55.

Errors in Mathematics, by G. A. Miller. 13:313-9, Ap '13.

Equation Balances, by Homer C. Torreyson. 55:104-8, Fe '55.

Equations Involving Radicals, by James W. Beach. 52:473-4, Je '52.

Equations of Some Common Geometric Figures, by John L. Spence. 58:674-6, De '58.

Equilateral and Other Triangles Associated with Triangles, by John Satterly. 56:11-20, Ja '56.

Equipment for Demonstrating Continuity in Geometry, by Sol Whitman. 53:34-8, Ja '53.

Euclid Dramatized, by Margaret Graff. 21:381-2, Ap '21.

Examination Scores and the Sign Test, by R. F. Graesser. 56:144-6, Fe '56.

Explanation of the Term Fourth Dimension, by G. A. Miller. 10:43-7, Ja '10.

Exploring the Field of Pythagorean Number, by Lewis W. Colwell. 40:619-27, O '40.

Extension of a Triangle Theorem, by D. Moody Bailey. 60:679-84, De '60.

Factoring - A Dissertation on the Case $ax^2 + bx + c$, by John M. Gallagher. 13:798-803, De '13.

Factoring Large Numbers, by Orville F. Barcus. 46:628-31, O '46.

Factoring the Trinomial $ax^2 + bx + c$ When $a>1$, by Doyne Holder. 58:548-9, O '58.

Factoring the Type $px^2 + qx + r$, by David Eugene Smith. 7:529, Je '07.

Factoring the Type $px^2 + qx + r$, by Bryon E. Toan. 7:291-2, Ap '07.

Fifth Grade Children Discover Fractions, by Vernie Mulholland. 54:13-30, Ja '54.

Filling a Square with Circles, by Arthur Porges. 45:858-61, De '45.

Flatland - A Mathematics Play. 14:583-7, O '14.

Formulas for Better Reading in Mathematics, by Delwyn G. Schubert. 55:650-2, N '55.

Formulas for Partial Fraction, by Raymond Garver. 28:615-7, Je '28.

Formulas for Volume by Simple Algebra, by John J. Corliss. 40:846-50, De '40.

Fractions and Ratio, by George Bruce Halsted. 9:48-50, Ja '09.

Frequency Distributions with Shot, by Frank Hawthorne. 51:394-5, My '51.

From the Complex to the Simple, by Jos. A. Nyberg. 21:343-9, Ap '21.

Functional Exponents, by Arthur Latham Baker. 8:225-7, Mr '08.

Gaging a Horizontal Cylinder, by William F. Rigge. 16:31-4, Ja '16.

Generating Some Higher Plane Curves, by Aaron Buchman. 44:309-14, Ap '44.

Geometric Constructions, by W. W. Beman. 10:528-9, Je '10.

Geometric Derivations of Some Trigonometric Formulae, by D. Mazkewitsch. 58:213-6, Mr '58.

Geometric Goldbricks, by Jerome Rosenthal. 45:472-8, My '45.

Geometric Illustrations in Teaching Algebra, by V. C. O'Leary. 47:802-4, De '47; and 48: 686-8, De '48.

Geometric Solutions of Quadratic Equations, by Walter H. Carnahan. 47:687-92, N '47.

Geometrical Constructions Arising from Simple Algebraic Identities, by I. A. Barnett. 38:521-7, My '38.

Geometrical Constructions Without the Compass, by Walter H. Carnahan. 36:182-9, Fe '36.

Geometrical Derivations of the Formulas for the Solution of Oblique Triangles, by John J. Corliss. 37:675-83, Je '37.

Geometrical Incongruities, by G. W. Greenwood. 8:250, Mr '08.

Geometrical Proof of the Formulas Sin $\frac{\alpha}{2}$, Cos $\frac{\alpha}{2}$, and Tan $\frac{\alpha}{2}$, by A. Babbitt. 17:45-6, Ja '17.

Geometrical Proofs of the Formulas Sin 2B, Cos 2B, Sin 3B, and Cos 3B, by Clifford N. Mills. 16:348-50, Ap '16.

Geometrical Representations of the Terms of Certain Series and Their Sums, by Adrian Struyk. 37:202-8, Fe '37.

Geometry, A High School Boy's Proof of the Pythagorean Theorem, by Earl Davidson. 7: 777-8, De '07.

Geometry of Paper Folding, by C. W. Trigg. 54:453-55, Je '54; and 54:683-9, De '54.

Grains of Sand and Drops of Water Help Make Numbers More Meaningful, by Melvin O. Wedul. 53:294-6, Ap '53.

Graph Tracing, by F. C. Boon. 5:398-401, Je '05.

Graph Work in Elementary Algebra, by F. C. Touton. 5:557-62, O '05.

Graphic Methods in Elementary Algebra, by William Betz. 6:683-7, N '06.

Graphic Railroad Time-Tables, by Florian Cajori. 10:204-5, Mr '10.

Graphical Illustration of Convergence of Series, by F. W. Doolittle and S. Epsteen. 7:770-7, De '07.

Graphical Method for Cubic Equations, by Alfred Ritter. 15:804-5, De '15.

Graphical Representation of a Geometrical Series, by D. H. Richert. 15:21-2, Ja '15.

Graphical Solution of Quadratic with Complex Roots, by T. M. Blakslee. 11:270, Mr '11.

Graphs - The Most Enlightening Topic of Elementary Algebra, by Laura Blank. 27:805-10 N '27.

Group Recitation in Geometry, by Lena B. Hansen. 18:103-8, Fe '18.

Group Teaching in Geometry, by Myrtle Downing. 22:455-8, My '22.

Group Work in High School Mathematics, by Carl W. Phelps. 45:439-42, My '45.

Happy Valentine Day to You, by Norma Sleigh 59:155, Fe '59.

Have You Tried Clay?, by Harriet B. Herbert 42:218-20, Mr '42.

Haversines in Plane Trigonometry, by Luise Lange. 45:552-3, Je '45.

Helping Children Build a Positive Attitude Toward Arithmetic Through Its Mathematical Concepts, by Ralph J. Cooke. 54:197-211, Mr '54.

High Fifth Mathematics - Projects Tested in Teaching Denominate Numbers, by Jenny Lind Green. 24:366-9, Ap '24.

Hints on Geometry Teaching, by G. C. Shutts 7:105-8, Fe '07.

Historically Speaking, by James T. Gray. 52:345-55, My '52.

Holiday Greetings from Thirty Scrambled Mathematicians, by C. W. Trigg. 54:679, De '54.

Home-Made or Inexpensive Mathematical Appar tus, by Joseph V. Collins. 7:524-8, Je '07

How a Polar Planimeter Works, by Allan W. Larson. 35:923-4, De '35.

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How to Draw a Straight Line, by F. E. Tuck. 21:554-8, Je '21.

How to Study a Technical Subject, by Lester Dawson. 39:259-61, O '39.

How to Study Algebra, by Esther E. Reese. 32:171-9, Fe '32.

How to Study Arithmetic, by Margaret R. Walters. 34:848-52, N '34.

How We Improved Our Teaching of the Story Problems in Algebra, by Dean VanLandingham. 57:717-21, De '57.

Illustrating the Conic Sections, by Walter H. Carnahan. 45:313-4, Ap '45.

Illustrations of the Versality of the Binomial Theorem, by A. M. Niessen. 46: 855-60, De '46.

Imaginary Quantities in Elementary Mathematics, by E. R. Hedrick. 9:563-71, Je '09.

Improving Language Ability in Mathematics, by Dora E. Kearney. 46:800-2, De '46.

Improving Problem Solving in Arithmetic, by Edgar A. Stahl. 53:746-7, De '53.

Improvement Sheet for Algebra, by Carl G. F. Franzen. 32:939-43, De '32.

Improvement Sheet for Plane Geometry, by Carl G. F. Franzen. 33:293-6, Mr '33.

In Mathematics Too: Linger and Learn, by Lester H. Lange. 53:478-83, Je '53.

Inconsistencies in Number Classification, by Cecil B. Read. 40:876-7, De '40.

Indefinite Definitions, by G. W. Greenwood. 8:502-4, Je '08.

Infinity Squared, by Ralph Seifert, Jr. 60: 492-5, Je '60.

$\int$, by Robert Fertig. 59:266-72, Ap '59.

Integral Solutions of Harmonic Equations, by Arthur B. Hussey. 42:677-9, O '42.

Integral Solutions of $x^2 + y^2 + z^2 = r^2$, by Ralph Hoyt Bacon. 47:155-64, Fe '47.

Integraphs, by Conrad K. Rizer. 33:1003-5, De '33.

Introducing Square Root to Eighth Grade Pupils, by H. Philip Barber. 33:852-3, N '33.

Intuitive Geometry Comes to Life, by Olive P. Dobbs. 40:221-5, Mr '40.

Inverting the Denominator of a Fraction, by G. A. Miller. 30:881-3, N '30.

Is an Infinitesimal Asteroid as Large as a Colossal Planet? A Mathematical Paradox, by Panos D. Bardis. 59:472, Je '59.

Is the Treatment of the Theory of Limits in Our Elementary Geometries Logical?, by Alan Sanders. 5:396-8, Je '05.

Is There any Use for Imaginary Numbers?, by P. H. Nygaard. 37:257-63, Mr '37.

Learning to Multiply Fractions, by Myrtie Collier. 22:324-9, Ap '22.

Limits in Elementary Geometry, by Ernest B. Lytle. 10:530-2, Je '10.

Limits in Elementary Mathematics, by G. W. Greenwood. 8:154-6, Fe '08.

Limits in Geometric Forms, by Arthur Latham Baker. 5:562-7, O '05.

Linear Indeterminate Equations - An Aid to Enrichment, by Donald R. Byrkit. 60:627-31, N '60.

Locating the Decimal Point in Slide Rule Answers, by Wendell F. Bennett. 60:402-5, My '60.

Loci Problems in Geometry, by Ernest G. Hapgood. 9:883-91, De '09.

Loci Problems in Geometry, by E. B. Wilson. 9:891-9, De '09.

Logarithms and Some of Their Applications for High School Pupils, by J. S. Counselman. 18:21-4, Ja '18.

Logic of Indirect Proof: A Note, by Robert M. Exner and Myron F. Rosskopf. 57:279-90, Ap '57.

Magic Squares and Cubes, by William E. Block. 45:839-50, De '45.

Making an Abacus, by F. Hawthorne. 51:227-8, Mr '51.

Making Concrete Several Kinds of Variation in Algebra, by Sheldon S. Myers, James A. Marks, and Jack Reynolds. 48:639-46, N '48.

Mathematical Bingo, by Richard Sinkhorn and Cecil B. Read. 54:232-3, Mr '54.

Mathematical Equipment and Its Uses, by H. C. Wright. 15:500-4, Je '15.

Mathematical Figures, by Franklin B. Wells. 54:695-8, De '54.

Mathematical Induction in High School Trigonometry, by Gleen F. Hewitt. 41:657-9, O '41.

Mathematical Snapshots, by Edwin W. Schreiber. 43:795-9, De '43.

Mathematical Thought for the Morrow, by Lester H. Lange. 55:529-34, O '55.

Mathematics and Money, by J. E. Slaughter. 55:518-9, O '55.

Mathematics for Christmas, by Joseph J. Urbancek. 48:678, De '48.

Mathematics in the Dark, by Edward Calhoon. 59:569-70, O '59.

Mathematics Relays for High Schools, by Ernest H. Koch, Jr. and Thomas H. McCormick. 16:530-6, Je '16.

Maxima and Minima Areas in Geometry, by Otto Dunkel. 28:710-6, O '28.

Maxima and Minima Without the Calculus, by W. R. Utz. 57:263-6, Ap '57.

Means and Progressions, by H. D. Larsen. 60:34-5, Ja '60.

Measurement, by George Bruce Halsted. 8: 208-12, Mr '08.

Meet Mr. Tau, by John Satterly. 56:731-41, De '56.

Meet Mr. Tau Again, by John Satterly. 57: 150-1, Fe '57.

Mercator Projection, by Clarence L. Vinge. 50:394-401, My '50.

Method of Construction of a Parabola, by Richard Bateman. 42:718, N '42.

Methods for Systematically Seeking Factors of Numbers, by Walter H. Carnahan. 52:429-35, Je '52.

Methods in Arithmetic and Algebra, by R. L. Short. 39:239-50, Mr '39.

Methods of Solving Elementary Systems of Equations in Two Unknowns, by John N. Meighan. 47:709-4, N '47.

Methods of Teaching the Special Products and Their Factors in Ninth Grade Algebra, by Elizabeth G. Howland. 36:771-6, O '36.

Misconceptions Concerning Construction Work in Geometry, by Martin Hirsch. 51:575-7, O '51.

Mnemonics Giving Approximate Values of Pi, by Aaron L. Buchman. 53:106, Fe '53.

Mock Trial of B versus A, Or Solving a Personal Equation by the Judicial Process, by Stephen Leacock, adapted by Katherine McSorley. 18:611-21, O '18.

Model for Circles and Straight Lines, by Ethel L. Grove. 50:743-4, De '50.

Model for Illustrating Proportions in Right Triangles, by Ethel L. Grove. 51:121-3, Fe '51.

Model for Introducing Overlapping Triangles, by Ethel L. Grove. 51:454-5, Je '51.

Model for Introducing Trigonometry on Ninth Grade Level, by Ethel L. Grove and Ewart L. Grove. 51:296-7, Ap '51.

Model for Introducing Congruent Triangles, by Ethel L. Grove. 51:386-8, My '51.

Model Showing Derivation of the Formula for the Area of a Trapezoid, by Ethel L. Grove. 51:298-9, Ap '51.

Models Depicting Some Groups of Movements, by Lindsay L. Hess. 58:585-92, N '58.

Models for Introducing Parallelograms, by Ethel L. Grove. 50:551-2, O '50.

Models for Introducing Special Products, by Ethel L. Grove, Charles E. Scott, and Ewart L. Grove. 50:662-4, N '50.

Models of Solids of Known Parallel Cross Section, by Margaret F. Willerding. 51:617, N '51.

Models Using Doctor's Applicators, by Frank Hawthorne. 51:470-1, Je '51.

Modern Applications of Exponential and Logarithmic Functions, by Herman Rosenberg. 60:131-8, Fe '60.

More Fun With Conics, by Norma Sleight. 47: 303-4, Ap '47.

More Mathematical Lingering: A Maximum Theorem, by Lester H. Lange. 54:478-83, Je '54.

Motivating the Study of Solid Geometry Through the Use of Mineral Crystals, by Jo McKeeby Phillips. 52:743-8, De '52; and 53:134-8, Fe '53.

Mr. Chips Teaches Geometry, by John J. Shea. 40:720-6, N '40.

Multiplication, by A. Latham Baker. 9:24-5, Ja '09.

Multiplication Socialized, by H. C. Christofferson. 59:532-9, O '59.

My Father, My Dog and Mathematics, by Ben L. Swensen. 60:400-1, My '60.

New Formulas for Logarithmic Interpolation, by Vernon W. Stone. 59:32-5, Ja '59.

New Materials and Equipment in the Teaching of Mathematics, by B. R. Ullsvik. 39:432-42, My '39.

New Method for Decimal Point on the Slide Rule, by F. H. Wade. 32:381, Ap '32.

New Proof for the Pythagorean Theorem, by Herman Katanik. 15:669, N '15.

New Proofs of the Theorem of Pythagoras, by J. M. Kinney. 41:249-54, Mr '41.

New Solution of High Equations, by H. A. Foering. 10:780-4, De '10.

New Terms in Geometry, by G. W. Greenwood. 8:758-9, De '08.

Nomograms, by P. M. Young. 47:521-5, Je '47.

Note on a Derivation of the Quadratic Formula, by Adrian Struyk. 40:410, My '40.

Note on "A Direct Demonstration," by Wm. A. Luby. 9:918, De '09.

Note on Integration by Parts, by R. F. Graesser. 51:602, N '51.

Note on the Law of Tangents, by E. R. Hedrick. 16:347-8, Ap '16.

Note on the Rule of Signs, by Walter H. Carnahan. 49:720-2, De '49.

Note on the Solution of the Equation $\frac{a}{x} + \frac{b}{y} = c$ for $x = y = o$, by G. A. Miller. 7:667-9, N '07.

Note on the Sums of Powers of the Natural Numbers, by R. F. Graesser. 51:357, My '51.

Note on the Term Logarithm, by G. A. Miller. 6:24-5, Ja '06.

Note on Triangles Whose Sides are Whole Numbers, by Norman Anning. 16:82-3, Ja '16.

Notes from a Mathematics Classroom, by Joseph A. Nyberg. 43:559-62, Je '43.

Notes on Approximate Computation, by M. W. Tate. 44:425-31, My '44.

Notes on Bolshevik Multiplications. 19:359-61, Ap '19.

Notes on Query Concerning Division, by Wm. B. Borgers. 9:697, O '09.

Notes on the Teaching of Geometry, by Jos. V. Collins. 17:583-9, O '17.

Number and the Four Fundamental Operations of Arithmetic, by Glenn James. 37:1025-8, De '37.

Number and the Quadratic, by Richard Morris. 15:655-69, N '15.

Number Scale for Illustrating all Four Fundamental Processes with Directed Numbers, by Ethel L. Grove, Ewart L. Grove, and Charles E. Scott. 51:456-60, Je '51.

Number Systems, by Emma L. Stringfellow. 59:557-60, O '59.

On a Derivation of $a = \frac{v^2}{r}$, by Julius Sumner Miller. 57:148-9, Fe '57.

On Divisibility by Seven, by Harold D. Larsen. 51:315-7, Ap '51.

On "Formulae for Rational Right Triangles," by Artemas Martin. 11:293-4, Ap '11.

On Some of the Symbols of Elementary Mathematics, by G. A. Miller. 7:406-10, My '07.

On Teaching of the Slide Rule, by R. F. Graesser. 53:707-9, De '53.

On the Computation of Common Logarithms for Beginners, by Robert E. Moritz. 9:223-5, My '09.

On the Definition of an Angle, by G. A. Miller. 9:45-7, Ja '09.

On the Graphic Representation of Sums of Squares, by Samuel I. Askovitz. 58:67-70, Ja '58.

On the Meaning, Use, and Importance of Zero, by A. N. Tucker. 52:443-4, Je '52.

On the Psychology of Errors in Elementary Mathematics, by Thomas J. McCormack. 13: 121-32, Fe '13; and 13:211-9, Mr '13.

On the Use of Difference Equations in Behavioral Diffusion Theory, by Henry Winthrop. 58:449-53, Je '58.

1 + 1, by Sylvia Russell Heimbach. 58:722, De '58.

Optical Illusions: A Presentation for High School Mathematics Students, by Louis Grant Brandes. 54:557-66, O '54.

Original Demonstrations in Geometry, by Fletcher Durell. 7:717-24, De '07.

Our Neglected System of Notation, by Paul R. Neureiter. 42:766-71, N '42.

Pandiagonal Magic Squares and Their Relatives, by Hiram B. Loomis. 44:831-8, De '44.

Pandiagonal Magic Squares on Square Bases and Their Transformations, by Hiram B. Loomis. 45:315-22, Ap '45.

Pappus's Solution of the Duplication Problem, by James H. Weaver. 15:216-7, Mr '15.

Parallelograms with Integer Sides and Diagonals, by Frank J. Brueckel. 56:687-96, De '56.

Peace and Goodwill, by A. N. Tucker. 51: 681-2, De '51.

Pedagogy in Trigonometry, by Arthur Latham Baker. 13:118-20, Fe '13.

Per Cent Without Three Cases, by Ernest N. Brown. 43:428-30, My '43.

Plastic and String Models of Regular Solids, by R. F. Graesser. 58:367-70, My '58.

Play and Games in Arithmetic, by Myrtie Collier. 14:229-31, Mr '14.

Plus and Minus Signs in Algebra, by Jos. A. Nyberg. 20:435-7, My '20.

Point-College, by Helen M. Schlauch. 31: 448-54, Ap '31.

Points Where the Arithmetic Teacher Can Prevent Algebra Difficulties, by C. R. Purdy. 39:768-9, N '39.

Polar Roses, by William R. Ransom. 59:571-3, O '59.

Polar Triangles, by Wm. F. Rigge. 6:663-6, N '06.

Polyhedra of any Dimension, by Owen Bradford. 60:589-92, N '60.

Positive and Negative Numbers, by H. C. Christofferson. 25:507-14, My '25.

Posters on Fractions, by Ethel L. Grove, Charles E. Scott, and Ewart Grove. 51: 11-3, Ja '51.

Power Series Expansions of Transcendental Functions, by Thomas James Higgins. 40: 265-6, Mr '40.

Presentation of the Addition of Positive and Negative Numbers by Motivations, by Hildegarde Romberg. 27:155-8, Fe '27.

Prime Numbers in Arithmetical Progression, by Artemas Martin. 13:793-7, De '13.

Prime Numbers in Sequences, by Walter H. Carnahan. 54:313-5, Ap '54.

Principal Values of Inverse Trigonometric Functions, by Cecil B. Read. 40:343-4, Ap '40.

Problems for Recreation, by Clarence Radius and William Van Santen. 34:87-90, Ja '34.

Procedure to Strengthen Ability to Solve Arithmetical Problems, by Joan E. Bowers. 57:485-93, Je '57.

Product of Two Numbers Each Ending in Five, by J. Wm. Drew. 50:64-5, Ja '50.

Products of Numbers Ending in 5, by E. A. Tabler. 53:15-6, Ja '53.

Professor Whiz and His Class in Magic Math, by Adah Vaughn. 39:540-5, Je '39.

Proof in Addition by Lateral Addition, by Vally L. Johnson. 55:544, O '55.

Proof of the Pythagorean Theorem, by Irving Saxe. 33:894-5, N '33.

Proofs of the Addition and Subtraction Formulas by Means of Ptolemy's Theorem, by Albert Babbitt. 17:784-876, De '17.

Prose Problems of Algebra, by Jos. A. Nyberg. 20:829-35, De '20.

Putting Meaning Into Geometric Concepts, by John J. Kinsella and Walter H. Carnahan. 48:541-9, O '48.

Putting More Meaning in the Teaching of Measurement, by William F. Goins, Jr. 50: 745-9, De '50.

Pythagorean Numbers, by Earl G. Boyd. 59: 99-100, Fe '59.

Rate Problems, by Lyman M. Saxton. 15:240-5, Mr '15.

Ratio or Concrete Quantities?, by Warren C. Hawthorne. 32:156-9, Fe '32.

Rational Numbers and Terminating Placemal Fractions, by Robert C. McLean, Jr. 60:626, N '60.

Ratios or Concrete Numbers?, by Warren C. Hawthorne. 32:644-7, Je '32.

Reasoning Problems in Mathematics, by I. A. Barnett. 40:548-56, Je '40.

Regarding a Certain Axiom, by E. R. Hedrick. 9:770-4, N '09.

Regular Pentagon and Quadratic Equation, by Ali R. Amir-Moéz. 60:733-6, De '60.

Relation Between Simple Interest and Compound Interest, by M. O. Tripp. 29:391-3, Ap '29.

Relations of Trigonometric Functions, by Leonard Thatcher. 45:365-6, Ap '45.

Relearning Fractions, by Myrtie Collier. 33:389-93, Ap '33.

Resourcefulness in Teaching the New Arithmetic, by Harriet E. Glazier. 40:777-9, N '40

Review of the Fundamental Processes - The Cross Number Puzzle, by Margaret F. Willerding. 54:51-2, Ja '54.

Round Table. (Mathematical Supplement) 1: 34-7, Ap '03; and 1:80-4, Je '03.

Round Table Discussions in Arithmetic Work, by C. R. Purdy. 38:258, Mr '38.

Rule for Extracting the Nth Root of Arithmetical Numbers, by William T. Short. 16: 70, Ja '16.

Safety Education Needs Met Mathematically, by Milton Beckman. 41:810-4, De '41.

Second Order Interpolation, by William R. Ransom. 55:460-2, Je '55.

Seeking Formulas for Tables of Related Values, by Laura Blank. 39:867-9, De '39.

Semi-Logarithmic and Logarithmic Graphing for Intermediate Algebra Students, by Norma Sleight. 49:737-48, De '49.

7th Grade Mathematics Yuletide Greeting, by Catherine Ann Barker. 42:890-1, De '42.

Short Cuts and Approximations in Calculations, by J. P. Harper. 41:351-8, Ap '41.

Shortened Multiplication and Division, by H. R. Grummann. 36:367-75, Ap '36.

Should We Invert the Fractional Divisor?, by Walter A. Thurber. 41:412-4, My '41.

Significant Figures in Trigonometry, by Cecil B. Read and E. B. Wedel. 43:661-4, O '43.

Simple Mapping Formulas, by C. E. Rhodes. 43:221-4, Mr '43.

Simple Proofs for Sin (A + B), Cos (A + B), by L. Richardson. 35:175-7, Fe '35.

Sine Curves, by A. R. Jerbert. 45:168-72, Fe '45.

Slogans in the Teaching of Arithmetic, by G. W. Myers. 27:144-8, Fe '27.

Socialized Multiplication - A Reply, by John C. Bryan. 60:199-201, Mr '60.

Socrates Teaches Mathematics, by Norman Anning. 23:581-4, Je '23.

Solid Geometry Made More Interesting, by Marvin C. Volpel. 38:740-2, O '38.

Solution by Factoring of Problems Under the Factor Theorem, by Carl Ackermann. 6:493-4, Je '06.

Solution of the Quadratic by Hyperbolic Functions, by Arthur Porges. 55:683-4, De '55.

Solution of the Quadratic Equation by Means of Complex Numbers, by John J. Corliss. 38: 256-8, Mr '38.

Solutions for Absolute Inequalities, by David H. Wordell. 56:568, O '56.

Solving Symmetric Equations, by Robert C. Yates. 54:234-5, Mr '54.

Some Antics with Semantics, by Leonard H. Golber. 60:14-6, Ja '60.

Some Applications of the Project Method in High School Mathematics, by Edith St. John Eaton. 20:443-7, My '20.

Some Direct Uses for Square Root, by Alan Wayne. 55:153-4, Fe '55.

Some Generalizations in Geometry, by A. J. Patterson. 23:636-7, O '23.

Some Graphical Methods, by Robert C. Colwell. 15:426-8, My '15.

Some Interesting Facts Concerning the Relations Between the Three Sides of a Right Triangle, by Robert R. Knowles. 20:562, Je '20.

Some Light Trigonometry, by Alan Wayne. 45: 453-6, My '45.

Some Mathematics of the Honey Comb, by R. F. Graesser. 46:339-43, Ap '46.

Some Mirror Trigonometry, by William R. Ransom. 55:599-600, N '55.

Some Notes on Problem Solving, by K. L. Yudowitch. 47:262-3, Mr '47.

Some of Nature's Curves, by Sue Avis Blake. 36:245-9, Mr '36; 36:486-9, My '36; and 36: 717-21, O '36.

Some Other Ideas About the Subtraction of Signed Numbers, by John O. Pyle. 38:676-9, Je '38.

Some Plane Geometry Problems, by Lida C. Martin. 21:765-9, N '21.

Some Practical Applications of Elementary Geometry, by Mabel Sykes. 6:367-70, My '06.

Some Products and Ratios - A Recreation, by Richard Morris. 36:837-49, N '36.

Some Properties of Rational Plane Triangles Whose Sides are Whole Numbers, by Artemas Martin. 13:320-6, Ap '13.

Some Recent Discussion on the Teaching of Mathematics, by W. W. Beman. (Mathematical Supplement) 1:28-31, Ap '03; and 1:72-5, Je '03.

Some Simple Applications of Elementary Algebra to Arithmetic, by M. O. Tripp. 15:496-500, Je '15.

Some Suggestions for Using Amateur Photography in Mathematics Courses, by T. L. Engle. 33:506-10, My '33.

Some Suggestions on the Teaching of High School Mathematics, by R. L. Short. (Mathematical Supplement) 1:70-2, Je '03.

Some Thoughts on Polyhedrons, by Gerald Freilich. 43:851-5, De '43.

Square-Off at Squares and Cubes, by Enoch J. Haga. 60:122-6, Fe '60.

Square Root, by A. R. Jerbert. 45:265-72, Mr '45.

Square Root: An Algebraic Approach, by Bernard J. Portz. 55:312-4, Ap '55.

Square Root in Eighth Grade Arithmetic and in Ninth Grade Algebra, by Edith L. Mossman. 31:813-21, O '31.

Step Function Notation, by John L. Spence. 60:179-80, My '60.

Still Another Viewpoint, by Luise Lange. 41:860-9, De '41.

Stimulating Interest in Mathematics, by Elmer C. Warren. 29:871-3, N '29.

Substitute Devices for Illustrating Equations, by Ewart L. Grove, Ethel L. Grove, and Charles E. Scott. 51:388-9, My '51.

Such is Life, by Eleanor J. Olmstead. 20: 135-9, Fe '20.

Symmetry and Congruence, by Aaron Buchman. 43:356-7, Ap '43.

Symmetry in Elementary Geometry, by M. O. Tripp. 15:596-9, O '15.

Teacher Research in Daily Classes. 49:477-83, Je '49.

Teaching Algebra, by Raymond S. Brickley. 47:341-7, Ap '47.

Teaching Directed Numbers, by H. C. Christofferson. 47:451-9, My '47.

Teaching Equations in First Year Algebra, by Elbert Fulkerson. 48:705-11, De '48.

Teaching Formulae in the Junior High School, by Jos. A. Nyberg. 21:409-17, My '21.

Teaching Fractions by the Bottle, by Cecil B. Read. 52:530, O '52.

Teaching Functional Relationships in Elementary Algebra, by H. C. Christofferson. 39: 611-7, O '39.

Teaching Mathematical Induction, by B. Freidman. 41:279-80, Mr '41.

Teaching Mathematical Induction, by Merton Taylor Goodrich. 40:472-6, My '40.

Teaching One Theorem in Plain Geometry by the Project Method, by T. E. Treutlein, Jr. 29:180-9, Fe '29.

Teaching Proportions in Geometry and Algebra, by Jos. A. Nyberg. 21:868-74, De '21.

Teaching Rate and Ratio in the Middle Grades, by Richard D. Crumley. 60:143-50, Fe '60.

Teaching the Subtraction of Signed Numbers, by Wendall W. Haner. 47:656-8, O '47.

Teaching the Subtraction of Signed Numbers, by M. W. Tate. 37:837-9, O '37.

Teaching Thought Problems in Ninth Grade Algebra, by Elbert Fulkerson. 36:393-8, Ap '36.

The Aftermath - A Classroom Game, by Sister Agnes. 49:31-2, Ja '49.

The Algebraic Number Scale, by A. R. Jerbert. 45:40-4, Ja '45.

The Ambigous Case, by B. R. Bentley. 29: 976-9, De '29.

The Angle Sum of the General Polygon, by J. S. Brown. 9:438-40, My '09.

The Area and Length of the Involute of a Circle by Elementary Methods, by G. D. L'Hommede. 9:916-7, De '09.

The Art of Summation, by A. R. Jerbert. 46: 703-7, N '46.

The Balance Like Rent, by E. A. Roe. 25: 952-61, De '25.

The Circumcircle, the Incircle, the Nine-Points Circle and the Circle Through the Feet of the Bisectors of the Angles of the Triangle, by John Satterly. 56:517-28, O '56.

The Computogram, by Arthur F. Eckel. 42: 827-30, De '42.

The Conic Compass, by John L. C. Lof. 38: 842-6, N '38.

The Cyclic Quadrilateral, A Recreation, by Richard Morris. 24:296-300, Mr '24.

The Decimal Point in Slide Rule Calculations, by Don L. Lewis. 55:520, O '55.

The Decimal Point - Your Slave or Master?, by Sol Whitman. 57:701-4, De '57.

The Definition of a Limit, by Ernest B. Lytle. 6:35-41, Ja '06.

The Derivation and Applications of the Conchoid of Nicomedes and the Cissoid of Diocles, by Harry Roeser. 14:790-5, De '14.

The Determination of Taxes in the Community, by Marie W. Sperks. 42:454-62, My '42.

The Dictionary of Geometry, by Charles H. Sampson. 22:461-2, My '22.

The Ditoxon, by Panos D. Bardis. 58:540-1, O '58.

The Duodecimal System of Notation, by L. H. Vincent. 9:555-62, Je '09.

The Effect of Scale in Rotation of Axes, by Cecil B. Read. 40:800, N '40.

The Equation of the Parabola, by Henry Boyd. 51:688, De '51.

The Evaluation of Pi in Elementary Geometry, by A. J. Schwartz. 11:791-3, De '11.

The Extension of the Exponent Concept, by Abraham M. Niessen. 48:605-10, N '48.

The Fourth Dimension: An Explanation the Geometry Class Can Follow, by Jos. B. Collins. 22:226-31, Mr '22.

The Fourth Proportional and Similarity in Construction Work, by Elmer R. Bowker. 27: 527-33, My '27.

The Function Concept in the Solution of Problems of Elementary Algebra, by Jacob M. Kinney. 45:693-703, N '45.

The General Equation of the Conic, by Ralph Mansfield. 42:729-36, N '42.

The General Value of Graphs, by E. B. Hodges. 14:214-6, Mr '14.

The Geometrical Construction of the Alphabet, by Gene Dolnich, David Kupperman, and Warren Sanderson. 58:119-24, Fe '58.

The Graph of $ax^2 + bx + c$, by J. L. Patterson. 18:45, Ja '18.

The Graph of the Unit Parabola, by J. R. Sage, Jr. 18:334-7, Ap '18.

The Graph of $Y = X^2$, by Fannie Webster. 6: 380-3, My '06.

The Graphical Solution of Problems, by Paul H. Geiger. 18:433-6, My '18.

The Graphical Solution of Spherical Triangles, by Myron O. Tripp. 20:734-42, N '20.

The Graphing of Single-Valued Functions in One Unknown, by John N. Meighan. 48:359-63, My '48.

The Half-Angle Formulas Derived by Line Values, by G. N. Armstrong. 17:364, Ap '17.

The Hatchel Planimeter, by Herbert E. Cobb. 15:802, De '15.

The Helios, by Hiram B. Loomis. (Mathematical Supplement) 1:32-4, Ap '03.

The Interpretation of Certain Notations in Decimals, by Cecil B. Read and J. Ray Hanna. 44:307-8, Ap '44.

The Interpretation of Data with Applications in Elementary Algebra, by William N. Jackson. 56:181-4, Mr '56.

The Inverse Distributive Law, by A. R. Jerbert. 46:351-8, Ap '46.

The Ladder Problem, by Robert C. Yates. 51: 400-1, My '51.

The Law $\sqrt{a}\sqrt{b} = \sqrt{ab}$ Holds for All Numbers, by Luise Lange. 41:457-61, My '41.

The Law of Cosines versus the Law of Tangents, by R. M. Mathews. 16:41-5, Ja '16.

The Law of Tangents, by John J. Corliss and Joseph J. Urbancek. 40:664-5, O '40.

The Law of Tangents in Modified Form and Some Other Related Formulas, by Jacob M. Kinney. 41:158-9, Fe '41.

The Laws of Exponents, by Richard Morris. 22:232-6, Mr '22.

The Locus Problem in Geometry with Some Discussion of the Utilities in Geometric Study, by Fletcher Durrell. 11:40-6, Ja '11.

The Math Quest, by Helen Whitaker. 20:457-9, My '20.

The Mathematics of Common Things, by Harriet E. Glazier. 16:667-74, N '16.

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Photoperiodism: The Remarkable Influence of Length-of-Day on Plant Processes, by Victor A. Greulach. 33:707-20, O '33.

Plant Chimeras and Their Relation to Hereditary Phenomena, by D. M. Mottier. 15: 713-6, N '15.

Plant Hormones, by William J. Robbins. 37: 158-67, Fe '37.

Plant Life and Human Affairs, by Clifford H. Farr. 21:847-55, De '21.

Practical Plant Protection, by Willard N. Clute. 23:786-91, N '23.

Presence of Living Organisms in Lake Ice, by Samuel Eddy. 24:730-2, O '24.

Problems of Instinct and Intelligence - A Book Review, by Margaret Blossom. 29:835-7, N '29.

Progress and Value of Tree Planting. 7:670-1, N '07.

Psychosomatic Medicine, by Carolyn G. Voigt. 50:614-8, N '50.

Radium Poisoning, by Emil F. Frech. 38:352-5, Ap '38.

Reaction Time: An Aptitude Test, by R. B. DeLano. 38:390-2, Ap '38.

Recent Developments in the Fixation of Atmospheric Nitrogen, by George W. Sears. 18: 527-33, Je '18.

Reindeer Progress in Alaska, by Lillian E. Zeh. 12:696-9, N '12.

Rewards for Discovery of Undisturbed Nestings of Passenger Pigeons Are Renewed, by C. F. Hodge. 12:432-3, My '12.

Seashore Shell Life of the Northwest, by B. Clifford Hendricks. 53:423-7, Je '53.

Sewage Disposal, by Charles Brossmann. 15: 198-205, Mr '15.

Shelterbelts, with Special Reference to the Government Shelterbelt Project, by Arthur P. Hutt. 52:39-46, Ja '52.

Snakes - Harmless and Poisonous, by A. I. Ortenburger. 30:166-70, Fe '30.

Some Agricultural Products of the Tropics, by Mel T. Cook. 6:619-20, O '06; 6:670-1, N '06; and 6:746-51, De '06.

Some Common Snake Stories, by A. I. Ortenburger. 30:420-8, Ap '30.

Some Economic Aspects of the Algae, by L. H. Tiffany. 28:581-93, Je '28.

Some Neglected Aspects of Sex, by J. Arthur Herrick. 51:359-64, My '51.

Some Notes on Behavior, by John P. Wessel. 45:242-8, Mr '45; 45:413-24, My '45; and 45:515-22, Je '45.

Some Observations of Forestry Practiced in France and Italy, by Worrallo Whitney. 31: 874-5, O '31.

Some Unusual Food Plants, by Marie T. Bleuel. 23:369-76, Ap '23.

Soy, by Edwin E. Slosson. 24:855-6, N '24.

Starting a New Disease, by Edwin E. Slosson. 25:514-5, My '25.

Sterility in Plants, by Victor A. Greulach. 41:747-58, N '41.

Tales of Tall Timber, by B. Clifford Hendricks. 52:102-4, Fe '52.

The Added Years, by Elliot R. Downing. 28: 813-28, N '28.

The Application of Genetics to Breeding Problems, by Leon J. Cole. 18:447-54, My '18.

The Big Tree of Tule, by Charles J. Chamberlain. 21:715-9, N '21.

The Biological Station of the University of Michigan, by H. A. Gleason. 13:411-5, My '13.

The Botanical Work of the National Research Council, by John M. Coulter. 19:234-6, Mr '19.

The Care and Breeding of Tropical Aquarium Fishes, by Myron Gordon. 32:637-40, Je '32.

The Catalpa Septum, by William H. Lamb. 12: 694-5, N '12.

The Catalpa Tree, An American Product, by John P. Brown. 10:428-30, My '10.

The Circulation of the Blood, by W. H. Manwaring. 2:28-9, Mr '02.

The Cocoanut - Its Composition and Germination, by J. E. Kirkwood. 2:401-5, Ja '03.

The Commercial Dried Fruit Industry, by Zoe A. Thralls. 46:398-403, My '46.

The Coral Reefs of the Gulf Coast, by M. M. Wells. 30:124-31, Fe '30.

The Determination of Sex, by D. Cecil Rife. 38:364-70, Ap '38.

The Distribution of Weeds by Means of Farm Seeds, by Katharine Thompson. 15:770-81, De '15.

The Effect of Selection on the Length of Spine in Daphnia Longispina, by Margaret S. Young. 24:503-6, My '24.

The Effects of Advancing Civilization Upon Plants, by Wm. Crocker. 13:277-89, Ap '13.

The Enigma of the Flowering Plants, by John E. Coe. 49:27-31, Ja '49.

The European Edible Snail, by M. A. Bigelow. 2:405-7, Ja '03.

The Feeding Habits of Fishes, by C. Judson Herrick. 2:324-7, De '02.

The Florida Fruit and Vegetable Region,by Anne M. Goebel. 37:658-64, Je '37.

The Forest Service of the United States and Its Work, by Lois Whitney. 10:814-9, De '10.

The Forest Yields New Products, by E. Garth Champagne. 59:198-206, Mr '59.

The Greatest Miracle, by John J. Miller. 49:111-9, Fe '49.

The Hawaiian Pineapple Industry, by Glen W. Warner. 59:541-4, O '59.

The Honeybee, by Arthur H. Moeck. 41:707-17, N '41.

The Littlest Life, by Edwin E. Slosson. 24: 642-4, Je '24.

The Louisville and Nashville Railway Plantations, by John P. Brown. 10:477-9, Je '10.

The Manufacture of Biological Products, by L. T. Clark. 28:457-62, My '28.

The Manufacture of Leather, by R. K. Carleton. 41:840-7, De '41.

The Marine Biological Laboratory, by Samuel E. Pond. 39:665-9, O '39.

The Minneapolis Wild Botanic Garden, by Eloise Butler. 10:229-34, Mr '10.

The Missouri Botanical Garden, by William Trelease. 8:98-103, Fe '08.

The New Biological Garden at Oak Park, by Thomas Large. 7:219-20, Mr '07.

The Pacific Industrial Conferences and Chemical Exposition, by Stanley W. Morse. 48:376-8, My '48.

The Para Rubber Tree in the Amazon Valley, by Carl D. LaRue. 28:357-67, Ap '28.

The Passenger Pigeon Investigation, by C. F. Hodge. 11:356-61, Ap '11.

The Physical-Chemical Characteristics of Some of the Proteins of Human Plasma, by L. E. Strong. 45:377-8, Ap '45.

The Physiology of Hibernation and Some Kindred Problems, by W. M. Smallwood. 16:720-2, N '16.

The Present Forestry Situation in the Lake States, by R. N. Cunningham. 48:365-73, My '48.

The Psychology of Insects, by Nathan A. Harvey. 9:367-74, Ap '09.

The Role of Hormones in Reproduction, by H. O. Burdick. 38:957-67, De '38.

The Sequoias of the West Coast, by E. A. Sterling. 6:553-60, O '06.

The Story of Blood Transfusions, by Marie C. Clair. 43:214-20, Mr '43.

The Story of the Gene, by Russell W. Cumley. 35:943-54, De '35.

The Study of Animal Behavior, by Robert Mearus Yerkes. 3:260-9, N '03.

The Value of Ecology in the Interpretation of Fossil Faunas, by Frank Collins Baker. 21:323-7, Ap '21.

The Value of Vaccination, by Wilfred H. Manwaring. 5:362-4, My '05.

The Venus-Flytrap (Dionaea Muscipula Ellis), by W. B. McDougall. 27:817-8, N '27.

The Yellow Butterfly Weed, by Willard N. Clute. 12:794-5, De '12.

Theories of Bird Migration, by Herbert Eugene Walter. 8:259-68, Ap '08; and 8: 359-66, My '08.

Those Drugs of Ours, by Frederick F. Yonkman. 45:118-27, Fe '45.

Those Tree Farms, by B. Clifford Hendricks. 55:720-4, De '55.

Timber Preservation - A Form of Forest Conservation, by F. C. Bohannon. 25:395-400, Ap '25.

Tooth Decay: Its Cause and Prevention, by Edward C. Colin. 37:844-7, O '37.

Transpiration as Energy Dispersal, by Charles A. Shull. 19:1-6, Ja '19.

Tropical Fruits, by Mel T. Cook. 5:478-80, Je '05; 5:509-12, O '05; 5:622-6, N '05; 5: 698-701, De '05; 6:13-6, Ja '06; 6:97-8, Fe '06; 6:209-11, Mr '06; and 6:313-5, Ap '06.

Trout Raising at Home, by B. F. Stiffler. 43:309-11, Ap '43.

Tuberculous Sputum in Public Streets, by W. H. Manwaring. 2:408-10, Ja '03.

Up-to-Date Facts About Foods, by Marjorie Fruit. 42:651-8, O '42.

Useful Weeds, by George D. Beal. 17:719-25, N '17.

Vitamins, by C. E. Ronneberg. 28:233-8, Mr '28.

Waste Disposal, by C. K. Calvert. 35:387-90, Ap '35.

What Is a Hypocotyl?, by Oran Raber. 26: 643-8, Je '26.

Why Hardwoods Do Not Grow Naturally in the West, by J. A. Larsen. 24:860-1, N '24.

Chemistry

A Brief History of Photography, by Fred H. Heath. 44:735-42, N '44.

A Chemist Looks at the Manufacture and Control of Pharmaceuticals, by J. Russell Bright. 47:39-43, Ja '47.

A Few Comparisons Between Oriental and Occidental Alchemy, by A. Postl. 52:519-22, O '52.

A Few Notes on Colloids, by W. C. Hawthorne. 30:481-9, My '30.

A Modern View of the Science of Chemistry, by E. A. Wildman. 35:141-52, Fe '35.

A New Method of Testing for Bromine and Iodine in the Presence of Each Other, by F. Harms. 30:24, Ja '30.

A Sulfer Well, by Robert M. Ladd. 18:685, N '18.

A Visit to a Sugar Refinery, by Harold Bisbee. 7:273-6, Ap '07.

A Visit to the Borax Plant of the American Trona Corporation at Searles Lake, California, by Wilhelm Segerblom. 26:578-82, Je '26.

Acids Occurring Naturally In Fruits, by J. W. Neckers and T. W. Abbott. 36:986-92, De '36.

Activated Nitrogen, by F. O. Anderegg. 20: 571-6, O '20.

Alcohol From the Chemist's Point of View, by R. E. Rose. 29:532-33, My '29.

Aluminum's Annoying Associate, by B. Clifford Hendricks. 55:149-52, Fe '55.

An Explanation of the Practical Side of Baking Powder Manufacture - Its Chemistry - Its Arithmetic, by Jesse F. Caplin. 17: 774-6, De '17.

An Outline of the Manufacture of Iron and Steel, by B. C. Quarrie. 11:191-201, Mr '11.

Anecdotes and Other Notes on Metals, by B. Clifford Hendricks. 51:1-6, Ja '51.

Antibiotics, by W. Brooks Fortune. 49:259-64, Ap '49.

Antoine Laurent Lavoisier: A Study of Achievement, by Gordon E. Noble. 58:593-600, N '58.

Artificial Gasoline, by Edwin E. Slosson. 25:307-8, Mr '25.

Artificial Rubies, by H. G. Byers. 6:16-8, Ja '06.

Artificial Silk, by Elizabeth Weirick. 26: 72-8, Ja '26.

Atoms in Action, by W. T. Skilling. 34: 737-42, O '34; 34:825-8, N '34; 34:962-6, De '34; and 35:69-75, Ja '35.

Atoms, Molecules and Ions, by James B. Conant. 27:468-82, My '27.

Balance Details, by E. C. Woodruff. 2:29-32, Mr '02.

Burning Atomic Hydrogen, by Edwin E. Slosson. 27:442, Ap '27.

Carrara Marble, by Nicholas Knight. 11: 175, Fe '11.

Chemical Notes on Portland Cement Manufacture, by D. I. Elder. 26:374-9, Ap '26.

Chemistry in 1858, by Otto J. Walrath. 33: 134-8, Fe '33.

Chemistry in War, by L. H. Reyerson. 43: 276-80, Mr '43.

Chemistry of Motion Picture Film, by R. E. Rose. 29:206-8, Fe '29.

Chemistry of Nitroglycerin, by R. E. Rose. 28:1002-4, De '28.

Coal Tar Dyes, by Herman Wright. 18:798-803, De '18.

Colloidal Chemistry, by Theodore Cohen. 14: 14-25, Ja '14.

Colloidal Common Salt, by Nicholas Knight. 14:232-33, Mr '14.

Concentration of Radium From Carnotite Ores, by B. S. Hopkins and G. C. Ruhle. 22:752-5, N '22.

Contributions of Chemistry in the Field of Hormones, by Fred C. Koch. 40:1-6, Ja '40.

Corn or Glucose Syrups, by Edward Gudeman. 2:22-6, Mr '02.

Corrosion - The Great Destroyer of Metals, by L. G. Knowlton. 52:703-11, De '52.

Dyes, by Bernard Jaffe. 26:500-5, My '26.

Early Valence Theories, by Arthur Haut. 32: 622-7, Je '32.

Electrolysis, by G. T. Franklin and W. H. McLain. 31:681-9, Je '31.

Electron and the Building of Atoms, by William D. Harkins. 20:392-402, My '20; and 20:501-12, Je '20.

Exploding Metals, by B. Clifford Hendricks. 51:339-45, My '51.

Fertilizers, Plastics, and Cattle Feed From Southwestern Washington Coals, by Charles Wilford Johnson. 58:529-34, O '58.

Fluorine - The Most Active Non-Metal, by Lawrence G. Knowlton. 56:511-5, O '56.

Glass - Its Chemistry and Manufacture, by A. M. Platow. 33:951-5, De '33.

High Explosive Bombs, by Charles B. Kenney. 24:281-5, Mr '24.

High Explosives, by Augustus Klock. 7:356-62, My '07.

High Explosives, by Clarence Talbot. 19:164-7, Fe '19.

How the Last Two Elements Were Found, by Hanor A. Webb. 32:475-86, My '32.

How the Scientist Studies Vitamins, by C. A. Elvehjem. 42:1-8, Ja '42.

Identification of Uranium Ore Simplified by Combined Chemical-Physical Test, by Kenneth W. Vinton. 51:618-20, N '51.

Illinium, by L. F. Yntema. 27:17-21, Ja '27.

Industrial Chemical Research, by John C. Hessler. 22:748-51, N '22.

Joseph Priestley, by Fred Meppelink. 60: 506-10, O '60.

Lavoisier (1743-1794), by Sister M. Agnese, N.D. 36:501, My '36.

Mendeleeff (1834-1907), by Sister M. Agnese, N.D. 36:1004, De '36.

Metal Films, by G. T. Franklin. 32:78-81, Ja '32.

Molal Constants of Freezing Point and of Boiling Point, by Fred H. Heath. 44:332-40, Ap '44.

Molecules, by Benj. H. Brown. 12:182-91, Mr '12.

Molecules in Dynamite, by R. E. Rose. 29: 328, Mr '29.

Mosely (1888-1915), by Sister M. Agnese, N.D. 37:54, Ja '37.

New Drug Development, by Edward J. Matson. 46:149-55, Fe '46.

Notes on the Progress of Chemistry, by Lyman C. Newell. 2:229-31, O '02; and 4:99-102, My '04.

Oils, Fats and Waxes in Ancient Times, by Eugene W. Blank. 38:633-8, Je '38.

Picric Acid Manufacture, by Harry C. Doane. 18:845, De '18.

Platinum Electrodes, by G. T. Franklin. 31: 838, O '31.

Poison War Gases, by Ralph E. Wellings. 42: 331-9, Ap '42.

Preparation and Properties of Boron, by Howard C. Kremers. 42:221-4, Mr '42.

Preparations of the Metals of the Rare Earth Group, by H. C. Kremers. 23:48-50, Ja '23.

Priestley (1733-1804), by Sister M. Agnese, N.D. 36:425, Ap '36.

Quartz - The Magic Mineral, by Glen W. Warner. 37:416-24, Ap '37.

Rayon - A Chemically-Made Yarn Rivaling the Silkworm's Product, by R. E. Rose. 29:379, Ap '29.

Recent Advance in Organic Chemistry, by Louder W. Jones. 6:384-92, My '06.

Recent Advances in Catalysis, by Harvey A. Neville. 24:72-8, Ja '24.

Recent Advances in Our Knowledge of the Vitamins, by Harold L. Mason. 37:264-72, Mr '37.

Recent Progress in the Use of Ozone in Ventilation, by F. O. Anderegg. 21:245-50, Mr '21.

Rubber and Plastics, by H. E. Brown. 47: 264-6, Mr '47.

Some Problems for Future Solution, by B. S. Hopkins. 18:588-92, O '18.

Some Problems in Tin Conservation, by R. W. Pilcher. 44:435-50, My '44.

Some War-Time Developments in Chemistry. (Series; See Miscellaneous Section.)

Stories of Fine Chemical Manufacturing, by Paul A. Krueger. 37:23-9, Ja '37.

Sulfonation of Organic Compounds, by E. L. Hill. 50:259-68, Ap '50.

Synthetic Detergents, by Lillian Hoagland Meyer. 54:83-8, Fe '54.

Synthetic Rubber, by Charles B. Price. 43: 251-3, Mr '43.

The Ammonia System of Compounds, by Henry Wolthorn. 34:65-71, Ja '34.

The Artificial Production of a Zeolite, by L. Evans. 22:755-7, N '22.

The Atom of the Chemist, by W. H. Rodebush. 22:737-48, N '22.

The Atomic Weight of Radium: A New Determination, by Mme. Curie. 8:104-6, Fe '08.

The Chemical Laboratories of Heidelberg and Bonn, by Nicholas Knight. 12:7-8, Ja '12.

The Chemist in the Petroleum Industry, by Gustav Egloff. 45:112-7, Fe '45.

The Chemist in Times of Crises, by Gerald Osborn. 51:425-9, Je '51.

The Chemistry of Analgesics, by Sister Antonius Kennelly. 36:49-53, Ja '36.

The Chemists Knowledge and Control of Molecules, by R. E. Rose. 29:655, Je '29.

The Chinese Five Element Theory, by Eugene W. Blank. 45:864-9, De '45.

The Development of a Synthetic Detergent, by Stanley C. Bunce. 54:637-55, N '54.

The Disintegration of Nitrogen, by R. W. Millar. 20:512-4, Je '20.

The Electron Theory of Valence, by R. F. Holden. 17:140, Fe '17.

The Forms and Uses of Graphite, by Bernard H. Porter. 43:459-65, My '43.

The Formula of Water, by John Waddell. 5: 192-5, Mr '05.

The Four Dangerous Sisters, by Lynn H. Clark. 59:742, De '59.

The German Potash Industry, by Charles R. Sanger. 3:276-80, N '03.

The Ionic Theory, by Gilbert Newton Lewis. 8:484-92, Je '08.

The Manufacture of Paints and Pigments, by Edward C. Holton. 11:425-7, My '11.

The New Elements, by L. F. Yntema. 26:707-9, O '26.

The Oil in Cherry Pits, by Harold L. Maxwell. 18:401-4, My '18.

The Positive Electron and the Building of Atoms, by William D. Harkins. 20:392-402, My '20; and 20:501-12, Je '20.

The Present Opportunity in Chemistry, by Roger Adams. 18:57-66, Ja '18.

The Present Status of the Corrosion Problem, by J. H. Reedy. 26:412-20, Ap '26.

The Rare Earths, by H. C. Kremers. 17:622-9, O '17.

The Strengths of the Oxygen Acids, by Linus Pauling. 53:429-35, Je '53.

The Theory of the Chemical Reactions, by B. W. Peet. 21:45-51, Ja '21.

The Work of the Chemical Warfare Service, by William O. Brooks. 44:51-8, Ja '44.

Tungsten, Tantalum, Columbium, by George W. Sears. 18:145-51, Fe '18.

Unexplored Fields in Chemistry, by T. W. Richards. 19:861, De '19.

Valence, by Walter O. Walker. 30:12-24, Ja '30.

Valence in the Light of Electronic Structure, by C. W. Bennett. 44:233-50, Mr '44.

Vanadium and Its Many Uses, by J. Forest Lewis. 8:63-4, Ja '08.

Wartime Gases, by Louis R. Welch. 42:276-80, Mr '42.

Will Soaps Become Old-Fashioned?, by V. M. Voraw. 38:393-401, Ap '38.

Earth Science

A Geographic Study of the Nitrate Region of Chile, by Clarence Post. 23:728-38, N '23.

A New Method of Mapping Complex Geographical Features, Illustrated by Some Maps of Georgia, by Roland M. Harper. 18:699-708, N '18.

An Alkali Water From the Black Hills, by Nicholas Knight. 12:277, Ap '12.

An American Laboratory for Earthquake Investigation, by Wm. Herbert Hobbs. 10:435-8, My '10.

An American Province - The San Luis Valley, by Alfred Crofts and Earl Lory. 38:482-95, My '38.

An Elementary Exposition of the Tides, by Edison Pettit. 13:57-65, Ja '13; and 13:98-104, Fe '13.

Anchor Ice, by John C. Packard. 33:831, N '33.

Arizona, by Jehiel S. Davis. 20:57-65, Ja '20.

Bone Petrification Exceeds Decomposition in Tropical Panama, by Kenneth W. Vinton. 51:371-6, My '51.

Can We Predict Earthquakes?, by Willis Bailey. 26:420-2, Ap '26.

Climatic Variation in California, by James F. Chamberlain. 12:755-66, De '12.

Coal Through the Microscope, by G. K. Guennel. 51:535-42, O '51.

Dinosaurs Yesterday - Petroleum Today, by James K. Anthony. 55:525-8, O '55.

Does the Scientist Find Oil?, by Chas. N. Gould. 30:244-6, Mr '30.

Drainage of Swamp Lands. 7:540-1, Je '07.

Dulany Cave, by H. K. Rhodes. 17:111-2, Fe '17.

Fishing With a Hammer, by Fred R. Jelliff. 24:79-83, Ja '24.

Frozen Soil in the Land of the Soviets, by H. Phillip Bacon. 57:213-9, Mr '57.

Future of the Mississippi River - The Effect That Destruction of Forests Will Have Upon Its Headwaters, by Chas. Cristadoro. 6:25-8, Ja '06.

Gastroliths From the Gizzard of a Dinosaur, by Edwin Elmore Jacobs. 38:861-3, N '38.

Gems That Resemble the Diamond, by F. B. Wade. 12:680-3, N '12.

Geographic Influences in the Development of the Mechanical Arts of Ancient Egypt, by Deette Rolfe. 17:233-6, Mr '17.

Glacial Moraines in the Vicinity of Estes Park, Colorado, by Lyman C. Wooster. 18:263-7, Mr '18.

"Grow" Foods or Only "Go" Foods, According to the Soil, by Wm. A. Albrecht. 44:24-35, Ja '44.

Highlights From the International Geographical Congress, by Mamie L. Anderzhon. 53:291-3, Ap '53.

How Old is the Earth?, by W. T. Skilling. 34:617-22, Je '34.

How Round is the Shape of the Earth?, by G. W. Littlehales. 17:1-10, Ja '17.

How the Scientist Goes About It to Find Petroleum, by Chas. N. Gould. 30:132-41, Fe '30.

Iguazu Falls, South America, by Minnie E. Lemaire. 42:619-25, O '42.

In Defense of the "Six" Great Lakes, by James K. Anthony. 56:606-8, N '56.

Intercision, A Peculiar Kind of Modification of Drainage, by James Walter Goldthwait. 8:129-39, Fe '08.

Interesting Technical Points on Gems, by Frank B. Wade. 15:233-9, Mr '15; 15:312-21, Ap '15; 15:382-8, My '15; and 15:489-94, Je '15.

Lava From Vesuvius, by Nicholas Knight. 11:851-2, De '11.

Locating the 1940 Center of Population, by W. A. Cogshall. 42:520-3, Je '42.

Mapping by Aerial Photography, by W. H. Spurgin. 20:488-94, Je '20.

Modern Problems in Water Supply and Sewage Disposal, by F. W. Mohlman. 46:233-9, Mr '46.

Natural History of the Trip to the N.E.A. Meeting at Denver, by Francis Ramaley. 9: 447-51, My '09.

Night Rainbows, by M. Anthony Payne. 38: 888, N '38.

Northern Alaska Exploration Shows Vast Oil and Gas Reserves, by Wadsworth Likely. 52: 472, Je '52.

Note on the Shape of the Earth, by Wm. O. Beal. 21:473, My '21.

Over Mexican Volcano in Helicopter, by Christina Buechner. 45:605, O '45.

Plant Action in the Formation of Caves and Cliffs, by J. Paul Goode and Otis W. Caldwell. 5:631-8, N '05.

Predicted Location of the 1930 Center of Population of the United States, by L. S. Shively. 30:757-60, O '30.

Regions of Vulcanism, by James K. Anthony. 53:387-97, My '53.

Rock City, by William B. Kinnear. 8:633-4, N '08.

Rock Strata and Our Environment, by Robert H. Long. 44:398-401, My '44.

Some Contrasts in the Geography of the Virginia Piedmont and the Illinois Plain, by Bessie Ashton. 24:273-6, Mr '24.

Some Rock Analyses, by Nicholas Knight. 12: 677-9, N '12; and 13:664-7, N '13.

Some Suggestions to Map Publishers, by Ruliff S. Holway. 11:488-93, Je '11.

State Geological Survey Reports on Limited Areas, by Frank Carney. 8:475-82, Je '08.

The Analysis of Some Well-Known Rocks, by Nicholas Knight. 16:7-8, Ja '16.

The Atchafalaya: Prince or Pirate?, by James K. Anthony. 55:1-4, Ja '55.

The Canalization of Streams, by Robert Marshall Brown. 7:658-64, N '07.

The Center of Population of the United States, by L. S. Shively. 32:336-8, Mr '32.

The Changing Geography of Arabia, by Clarence Woodrow Sorensen. 47:497-501, Je '47.

The Decay of Mountains and the Formation of Soils, by Lyman C. Wooster. 20:792-6, De '20.

The Deflective Effect of the Earth's Rotation, by Charles F. Brooks. 17:517-21, Je '17.

The Eruption of Kilauea, by T. A. Jaggar. 29:442, Ap '29.

The First Americans, by Wilton Marion Krogman. 30:25-30, Ja '30.

The Geography of the Route of the World Flyers, by Chas. S. Preble. 25:525-6, My '25.

The Great Plains, by S. W. Williston. 5: 641-51, N '06.

The Harz, by Charles Emerson Peet. 10:439-47, My '10.

The Hawaiian Islands as a Summer Resort, by E. L. Moseley. 24:513-6, My '24.

The Ice Dam on the Missouri River, by Ellwood C. Perisho. 8:37-40, Ja '08.

The Jordan Valley, by Frederick Homburg. 12:700-1, N '12.

The Part of Science in the Finding of Petroleum, by Chas. N. Gould. 30:33-8, Ja '30.

The Progress of Iron Ore, by Adele C. Laundergan. 57:181-99, Mr '57.

The Riddle of the Ice Ages, by Estill I. Green. 57:223-33, Mr '57.

The Rock from Solomon's Quarries, by Nicholas Knight. 13:573, O '13.

The Shale Oil Industry in America, by Arthur J. Franks. 23:519-21, Je '23.

The Time Interval Between the Tides, by Herbert C. Wood. 9:462-3, My '09.

The United States Coast and Geodetic Survey, by Helen M. Strong. 34:843-8, N '34.

The Work of the Hydrographic Office in Its Relation to Commerce, by W. J. Wilson. 6: 125-30, Fe '06; and 6:169-73, Mr '06.

The Yosemite Valley, by Harold W. Fairbanks. 11:626-8, O '11.

Trade of the United States with Latin America: Some Recent Changes, by Bessie L. Ashton. 24:834-40, N '24.

United States Geographic Board. 7:326-7, Ap '07.

Water That Appears to Flow Up-Hill, by B. K. Baker. 26:24-5, Ja '26.

Mathematics

A Brief Note on Horner's Method, by Cecil B. Read. 34:466, My '34.

A Comparative Study of Congruent and Similar Triangles, by Robt. R. Goff. 18:306, Ap '18.

A Few Uncertainties in the History of Elementary Mathematics, by G. A. Miller. 32:838-44, N '32.

A Graphic Determination of the Complex Solutions of the Quadratic Equation, $x^2 + ax + b = 0$, by Gunther Wunsche. 33:555-6, My '33.

A Graphical Representation of Approximations for Square Root, by Otto Dunkel. 18:621-5, O '18.

A Graphical Solution of Empirical Relations of One Independent Variable in a Function Containing Four Undetermined Constants, by Walter Bartky. 21:358-65, Ap '21.

A Graphical Solution of the Equation, $\frac{1}{A} = \frac{1}{a_1} + \frac{1}{a_2} + \ldots$, by J. H. V. Finney. 18:203-6, Mr '18.

A Little Understood Principle in Multiplication, by Hilton Ira Jones and Blanche P. Jones. 25:36-43, Ja '25.

A Mathematical Interpretation of Crossing the Last Frontier, by Ethelbert W. Haskins. 53:563-6, O '53.

A Metrical Analogy Between the Triangle and the Tetrahedron, by Roy MacKay. 35:730-6, O '35.

A Minor Reform, by G. A. Miller. 5:394-5, Je '05.

A Model of Supplementary Trihedral Angles, by R. M. Mathews. 18:846-8, De '18.

A New Ellipsograph?, by J. A. Van Groos. 22:471-2, My '22.

A New Measure of Central Tendency, by Julian M. Blair. 32:661-4, Je '32.

A New Number System, by H. C. Christofferson. 24:913-6, De '24.

A Practical Method for Demonstrating the Error of Mean Square, by Herbert F. Roberts. 19:677-92, N '19.

A Proof of the Law of Tangents, by J. S. Georges. 29:840, N '29.

A Queer Mistake, by G. A. Miller. 18:305, Ap '18.

A Small Table of Values of the Binomial Coefficient, by C. H. Forsyth. 18:142-4, Fe '18.

A Study in Determinants, by C. M. Himel and C. A. Stone. 20:835-7, De '20.

A Thread of Mathematical History and Some Lessons, by Zoe Ferguson. 24:37-45, Ja '24.

A Triangle Theorem, by D. Moody Bailey. 60:281-4, Ap '60.

A Unique Property of the Spherical Hyperbola and the Spherical Parabola, by A. V. Pershing. 35:814-24, N '35.

Algebra and Excess-Profits Taxes, by Robert Moritz. 26:608-13, Je '26.

Algebra of Complex Numbers, by Warren Strickland. 58:690-1, De '58.

An Ancient Duodecimal System, by Rufus P. Williams. 9:516-21, Je '09.

An Application of Group Theory, by T. M. Blakslee. 7:536, Je '07.

An Extension of a Process in Factorization, by S. M. Karmalkar. 21:628-30, O '21.

Anomalous Forms in Writing Numbers, by Florian Cajori. 16:246-7, Mr '16.

Another Approximate Tri-section Method, by J. S. Georges. 44:690, N '44.

Arches Throughout the Ages, by Norma Sleight. 45:21-5, Ja '45.

Archimedes and Mathematics, by H. T. Davis. 44:136-45, Fe '44; and 44:213-21, Mr '44.

Arguments Against Universal Adoption of the Metric System, by Cecil B. Read. 50:297-306, Ap '50.

Bolshevik Multiplication, by H. J. R. Twigg. 18:698, N '18.

Brief History of Computers, by Edward C. Calhoun and Glen W. Watson. 60:87-94, Fe '60.

Closing the Gaps in the Number System, by P. H. Nygaard. 46:610-6, O '46.

Coefficients in Expansions of Polynomials, by D. Mazkewitsch. 58:703-9, De '58.

Computations in Precision Riveting, by Ronald L. Ives. 46:323-8, Ap '46.

Concerning the Derivative of a Function, by D. H. Richert. 34:949, De '34.

Coordinates in the History of Mathematics, by Ruth M. Tapper. 29:738-44, O '29.

Correcting Errors in the Histories of Mathematics, by G. A. Miller. 35:977-83, De '35.

Correlation in Non-Linear Types, by William R. Ransom. 25:700-2, O '25.

Definition and Classification of Geometries, by Ernest P. Lane. 30:50-6, Ja '30.

Dimensionality, by Ernest P. Lane. 34:295-301, Mr '34.

Diophantine Analysis Applied to the Constructibility of Regular Polygons, by M. O. Tripp. 21:422-4, My '21.

Diophantine Recreations, by Adrian Struyk. 35:269-72, Mr '35.

Early Forms of a Few Common Instruments, by William E. Stark. 9:871-4, De '09.

Elasticity of Elementary Functions, by J. S. Georges. 46:17-24, Ja '46; 46:164-7, Fe '46; and 46:273-6, Mr '46.

Euclidean Construction for Imaginary Roots of the Quadratic Equation, by J. Shaylor Woodruff. 34:950-7, De '34.

Euclid's Elements, by R. E. Langer. 34:412-23, Ap '34.

Euler's Theorem: E + 2 = F + V, by Dewey C. Duncan. 35:40-3, Ja '35.

Evaluation of Pensions, by R. F. Graesser. 59:354-8, My '59.

Evolution of Pi: An Essay in Mathematical Progress from the Great Pyramid to Eniac, by Panos D. Bardis. 60:73-8, Ja '60.

Formula for Group Tests, by Harold S. Hulbert. 20:147-50, Fe '20.

Formulae for Integral Sided Right Triangles, by Fred R. Brown. 34:21-5, Ja '34.

Fractional, Zero and Negative Exponents, by May A. Blodgett. 32:628-36, Je '32.

Geometric Applications of Complex Numbers, by Allen A. Shaw. 31:754-61, Je '31.

Geometric Proofs of Certain Trigonometric Relations, by Benjamin Braverman. 33:847-52, N '33.

Gerbert's Letter to Adelbold, by G. A. Miller. 21:649-53, O '21.

Graphical Algebra as Applied to Functions of the nth Degree, by Francis E. Nipher. 18:603-5, O '18.

Graphical Trisection of an Angle, by E. D. Pickering. 22:548-9, Je '22.

Historical Note on the Solution of Equations, by G. A. Miller. 24:509-10, My '24.

Historical Oddities Relating to the Number, by Cecil B. Read. 60:348-50, My '60.

Histories of Mathematics, by Florian Cajori and D. E. Smith. 24:939-47, De '24.

History of Algebra, by Walter H. Carnahan. 46:7-12, Ja '46; and 46:125-30, Fe '46.

History of Arithmetic, by Walter H. Carnahan. 46:209-13, Mr '46; and 46:329-34, Ap '46.

History of Mathematics at University of California, by Oscar Schmiedel. 19:462, My '19.

History of Mathematics in America, by G. A. Miller. 35:292-6, Mr '35.

Horner's Method - Shortened, by Hollis D. Hatch. 36:1007-8, De '36.

How a Planimeter Works, by Allan W. Larson. 35:932-41, De '35.

How the Middle Ages Counted, by Bernadette M. Larney. 31:919-30, N '31.

How X Came to Stand for Unknown Quality, by Florian Cajori. 19:698-9, N '19.

Identification of Wires in a Cable, by William F. Rigge. 26:617-8, Je '26.

If Two External Bisectors are Equal, Is the Triangle Isosceles?, by J. J. Corliss. 39:732-5, N '39.

In Praise of Mathematics, by J. S. Georges. 36:509, My '36.

Integers and Related Problems, by Thos. E. Mason. 31:395-407, Ap '31.

Liars and Statisticians, by Harry S. Pollard. 45:569-78, Je '45.

Making Algebra Feed the Allies, by Frank M. Rich. 18:811-9, De '18.

Many-Valued Logics, by J. Barkley Rosser. 41:99-100, Ja '41.

Marginal Notes on Cajori's History of Mathematics, by G. A. Miller. 19:830-5, De '19.

Mathematical Bibliography. 48:757-60, De '48.

Mathematical Shortcomings of the Greeks, by G. A. Miller. 24:284-7, Mr '24.

Mathematics, by Edward G. Burgess, Jr. 24: 264-72, Mr '24.

Mathematics in Elementary Photography, by Robert A. Atkins. 55:175-8, Mr '55; and 55:338-9, Ap '55.

Mathematics Used by American Indians North of Mexico, by Ruby Rossmann and F. L. Wren. 33:363-72, Ap '33.

Measuring Instruments of Long Ago, by William E. Stark. 10:48-67, Ja '10; and 10: 126-39, Fe '10.

Mistakes in the Computation of Standard Deviations, by Walter C. Eells. 24:623-6, Je '24.

New Mathematical Periodicals, by G. A. Miller. 22:276-80, Mr '22.

Nomography, by J. S. Georges and W. W. Gorsline. 36:267-72, Mr '36.

Note on Curcilinear Asymptotes, by Lester Dawson. 36:653-54, Je '36.

Note on Prime Numbers, by G. A. Miller. 21: 874, De '21.

Note on the Phillips System of Multiplication, by W. E. Pyke. 25:949-51, De '25.

On a Problem of Steinhaus, by H. Ivol Dohner. 41:765-7, N '41.

On Certain Criticisms Made by Professor G. A. Miller. 26:476-81, My '26.

On Computer Components and Data Processing, by Enoch J. Haga. 60:187-90, Mr '60.

On Fingerprints in Number Words, by Luise Lange. 36:13-9, Ja '36.

On Several Points in the History of Algebra, by G. A. Miller. 29:404-10, Ap '29.

On the Contributions of Mathematics to the Development of Atomic Energy, by James H. Roberts. 50:384-93, My '50.

On the Definability of Zero to the Power of Zero, by Robert S. Fouch. 53:693-6, De '53.

On the Discriminant of the Cubic Equation, by Raymond Garver. 29:474-6, My '29.

On the Equation ax - by = c, by D. Mazkewitsch. 58:741-4, De '58; and 60:288-90, Ap '60.

On the Equiangular Spiral, by W. C. Risselman. 35:55-62, Ja '35.

On the History of Common Fractions, by G. A. Miller. 31:138-45, Fe '31.

On the History of Mathematical Ideas, by G. A. Miller. 29:954-60, De '29.

On the History of "Playfair's Parallel Postulate", by Florian Cajori. 18:778-9, De '18.

On the Relations of Mathematics to Commerce, by Robert E. Moritz. 19:350-7, Ap '19.

On the Theorems of Pappus, by Raymond Garver. 27:937-40, De '27.

Origin of the Names Arithmetrical and Geometrical Progression and Proportion, by Florian Cajori. 22:734-7, N '22.

Other Sides of Mathematical Statements in the New Edition of the Britannica, by G. A. Miller. 30:295-300, Mr '30.

Outline of the History of Algebra, by George E. Reves. 52:61-9, Ja '52.

Outline of the History of Arithmetic, by George E. Reves. 51:611-7, N '51.

Outline of the History of Geometry, by George E. Reves. 52:299-309, Ap '52.

Outline of the History of Trigonometry, by George E. Reves. 53:139-45, Fe '53.

Parabolic Functions, by J. S. Georges. 58: 138-47, Fe '58.

Periodic Decimal Fractions, by M. O. Tripp. 19:110-3, Fe '19.

Probabilities, by Joseph M. Synnerdahl. 24: 922-35, De '24.

Proof of Geometrical Theorem, by Takeshi Omachi. 18:369, Ap '18.

Proving a Geometrical Fallacy by Trigonometry, by William W. Johnson. 19:527-8, Je '19.

Short Methods in Multiplication, by Robert C. Colwell. 18:305-6, Ap '18.

Solution of Cubic Equations by Straight Line Graphs, by M. G. Schucker. 20:818-20, De '20.

Some Additional Notes on a Problem of Steinhaus, by Adrian Struyk. 42:325-30, Ap '42.

Some Formulae for Checking Correlation Tables, by J. N. Mallory. 25:44-8, Ja '25.

Some Industrial Effects of Quality Control by Statistical Methods, by Lloyd A. Knowler. 47:207-11, Mr '47.

Some of Nature's Curves, by Sue Avis Blake. 36:245-9, Mr '36; 36:484-9, My '36; and 36:717-21, O '36.

Some Theorems From Pappus on Isoperimetric Figures, by James H. Weaver. 16:674-9, N '16.

Square Root of a Line Without Use of the Circle, by John B. Wood. 22:111-3, Fe '22.

Talk on Logarithms and Slide Rules, by Florian Cajori. 20:527-30, Je '20.

Tangent Lines Again, by Florian Cajori. 23: 64-6, Ja '23.

Tangent Lines Among the Greeks, by G. A. Miller. 22:463-4, My '22; 22:715-7, N '22; and 23:320-2, Ap '23.

The Character of the Roots of a Quadratic Equation, by Robert E. Moritz. 20:433-4, My '20.

The Detroit Mathematics Club, by Melvin J. Gillard. 28:670, Je '28.

The Development of the Function Concept, by G. A. Miller. 28:506-16, My '28.

The Development of the Graph for Expressing Functionality, by G. A. Miller. 28:829-34, N '28.

The Evolution of Our Exponential Notation, by Florian Cajori. 23:573-81, Je '23.

The Fibonacci Numbers, by Adrian Struyk. 44:701-7, N '44.

The Geometry of Ethics, by Edwin E. Slosson. 25:88-90, Ja '25.

The Lehmus-Steiner Theorem, by David L. MacKay. 39:561-72, Je '39.

The Mathematical Association of America, by G. A. Miller. 21:418-22, My '21.

The Mathematics of Gambling, by Ernest E. Blanche. 46:217-27, Mr '46.

The Mathematics of the Orient, by Louis C. Karpinski. 34:467-72, My '34.

The Mathematics of War Bulletins, by Paul R. Neureiter. 41:620-7, O '41.

The Method of Advancing Centroids Applied to the Graphic Determination of Mean Values and Moving Averages, by S. I. Askovitz. 58: 644-9, N '58.

The Origin and Development of Algebra, by Louis C. Karpinski. 23:54-64, Ja '23.

The Origins of Our Numeral Notation, by Clara DeMilt. 47:701-8, N '47.

The Parallel Development of Mathematical Ideas, Numerically and Geometrically, by Louis C. Karpinski. 20:821-8, De '20.

The Proton Exchange Concept of Acidity, by Ernest W. Bowerman. 35:260-8, Mr '35.

The Pseudo-Isosceles Triangle, by David L. MacKay. 40:464-8, My '40.

The Pythagorean Theorem, by J. S. Georges. 27:367-78, Ap '27.

The Romance of Logarithms, by Frances E. Andrews. 28:121-30, Fe '28.

The Tangent of 2X, by William F. Rigge. 22: 648-50, O '22.

The Terminology of Elementary Geometry, by Louis C. Karpinski and Adelaide M. Fiedler. 24:162-7, Fe '24.

The Theorem of Nicomachus, by Oscar Schmiedel. 20:462-5, My '20.

The Unit Fractions of Ancient Egypt, by Walter H. Carnahan. 60:5-9, Ja '60.

The Witch of Agnesi, by Harold D. Larsen. 46:57-62, Ja '46.

Theory of Iterated Trigonometric Functions, by W. Raymond Griffin. 45:341-50, Ap '45.

Third List of Marginal Notes on Cajori's History of Mathematics, by G. A. Miller. 23:138-49, Fe '23.

Two Methods of Locating the German Super Gun, by Harris F. MacNeish. 18:626-8, O '18.

Two Representative Problems and Their Historic Setting, by Edwin W. Schreiber. 29: 818-24, N '29.

Under What Conditions Can a Number Be Equal to Its Logarithm?, by Smith D. Turner. 28: 376-9, Ap '28.

What Are the Chances That . . ., by Thorton C. Fry. 29:357-9, Ap '29.

What Are the Chances That . . .; A Few Questions, by Norman Anning. 29:460, My '29.

What Day Is It?, by R. L. Humiston. 26:841-4, N '26.

Weighing of Data, by J. P. Ballantine. 20:140-1, Fe '20.

Meteorology

A Discussion of Some of the Principles Underlying Rainfall, by Hiram W. Edwards. 27:926-8, De '27.

Are the Seasons Changing?, by Clarence J. Root. 21:779-80, N '21.

Aviation Meteorology, by James M. Austin. 43:62-6, Ja '43.

Dust Spiral Near Flagstaff, Arizona, by Ferdinand W. Haasis. 22:580, Je '22.

Fog on the Newfoundland Banks, by C. T. Brodrick. 9:83-4, Ja '09.

Fuel vs. Weather: A Large-Scale Heat Project, by Clarence R. Perisho. 60:227-34, Mr '60.

Height of Clouds at Sunset, by Edison Pettit. 15-213-6, Mr '15.

Height of Clouds at Sunset, by E. F. Chandler. 15:429-31, My '15.

Lightning Phenomena, by Electrical World. 11:731-6, N '11.

Long Range Forecasts. 8:186-90, Mr '08.

Recent Advances in Meteorology, by Henry J. Cox. 5:83-93, Fe '05; and 5:159-67, Mr '05.

Some Problems of the Weather Man, by Clarence J. Root. 25:489-94, My '25.

Stratosphere Flights. 44:161-3, Fe '44.

The Cause of Winds; an Inductive Study, by R. R. Turner. 13:599-60, O '13.

The Movement of a Storm Area Across the United States and Southern Canada, by W. S. Belden. 23:122-6, Fe '23.

The Physics of Precipitation in the Atmosphere, by Roland J. Boucher. 47:375-81, Ap '47.

The September Tornado at New Orleans, by Julius Sumner Miller. 48:117, Fe '48.

Tremendous Snowstorm in Palestine, February 9-11, 1920, by Otis A. Glazebrook. 20:760-2, N '20.

Tropical Hurricanes and Typhoons, by Stephen S. Visher. 23:223-7, Mr '23.

What Causes Rain?, by Benjamin Bold. 48:591, N '48.

Physics

A Halo and a Rainbow, by Howard E. Simpson. 14:237, Mr '14.

A Modification of the Formula for Thin Lenses, by Charles H. Skinner. 19:558-9, Je '19.

A Remarkable Phenomenon, by C. E. Peet. 7:303, Ap '07.

A Survey of Physics, by Wm. S. Franklin. 27:975-80, De '27.

A Universal Projection Lantern, by E. J. Rendtorff. 9:293-7, Mr '09.

Absolute Temperature, by Kirstine nee Bjerrum Meyer. 22:127-37, Fe '22.

Aircraft Instrumentation, by W. W. Davies. 45:136-47, Fe '45; and 45:215-22, Mr '45.

Air Cruises by Radar Over the Barracks Floor, by Roscoe E. Harris. 46:755-67, N '46.

Air Pressure - How It Was Discovered - Story of the Barometer, by Merton C. Leonard. 16:631-6, O '16.

An Improved Form of Projection Objective, by E. J. Rendtorff. 9:19-21, Ja '09.

An Old Form of Top Revived, by Chas. T. Knipp. 20:113-6, Fe '20.

Approaching Absolute Zero, by Peter Debye. 44:380, Ap '44.

Are Atoms Divisible?, by Arthur A. Skeels. 5:533-7, O '05.

Argonne National Laboratory - Past, Present and Future, by Stuart McLain. 58:261-73, Ap '58.

At the Surface of Things, by C. C. Kiplinger. 23:9-21, Ja '23.

Atom Smashing and Its Modern Applications, by Robley D. Evans. 45:665-8, O '45.

Atom Structure and Electrical Eyes, by John Mills. 28:181-2, Fe '28.

Atomic Magnetism, by Wm. S. Franklin. 26: 704-6, O '26.

Atomic Nuclei, by W. B. Pietenpol. 36:259-66, Mr '36.

Atomic Structure, by R. R. Ramsey. 18:792-8, De '18.

Atoms in Action, by W. T. Skilling. 34:737-42, O '34; 34:825-8, N '34; 34:962-6, De '34; and 35:69-75, Ja '35.

Automatic Headlight Control for Automobiles, by Benj. Johnson. 41:179-80, Fe '41.

Birge's Work on the General Physical Constants, by Duane Roller. 30:175-9, Fe '30.

Blaise Pascal's New Experiments on Vacua, by Willard J. Fisher. 19:11-9, Ja '19.

Bohr's Theory of the Hydrogen Atom, by O. Oldenberg. 38:692-6, Je '38.

Breaking Through the Barrier, by Robert D. Beckman. 49:120-6, Fe '49.

Can a Machine Think?, by Edmond P. Odescalchi. 58:667-71, De '58.

Colloids, by Harry N. Holmes. 13:672-80, N '13; and 13:765-71, De '13.

Colloids and Crystals, the Two Worlds of Matter, by Robert H. Bradbury. 13:563-72, O '13.

Concepts of the Atom, by Frederick E. White. 39:457-61, My '39.

Concerning Rocket Ships and Space Travel, by Julius Sumner Miller. 52:464-6, Je '52.

Cosmic Rays, by G. E. Owen. 33:414-22, Ap '33.

Cosmic Rays, by John A. Tobin. 42:270-6, Mr '42.

Cosmic Rays, by T. F. Watson. 37:182-6, Fe '37.

Cosmic Rays and the Dance of Energy, by Sue Avis Blake. 32:970, De '32.

Cyclic Accelerators, by D. J. Tendam. 59: 175-82, Mr '59.

Data on Earth Satellites, by Nathan L. Nichols. 59:55-8, Ja '59.

Daughter of the Laboratory, by B. Clifford Hendricks. 43:800-2, De '43.

Decibels and Noise, by F. R. Watson. 36: 158-61, Fe '36.

Discussion of Force, Mass and Acceleration, by Wm. S. Franklin. 26:866-9, N '26.

Does the "Charge" of a Condenser Reside in the Dielectric?, by Harvey C. Roys. 25: 407-9, Ap '25.

Electric Waves - The Modern Mercury, by R. W. King. 26:345-55, Ap '26.

Electromagnetic Radiations in War and Peace, by Luther S. H. Gable. 44:296-302, Ap '44.

Electrons, Protons and Waves, by Philip M. Morse. 34:200-6, Fe '34.

Electroplating, by T. S. Huxham. 17:412-4, My '17.

Explanation of "A Curious Phenomenon", by J. A. Sinclair. 14:238-9, Mr '14.

Falling Bodies in Ancient and Modern Times, by Florian Cajori. 21:638-48, O '21.

Fission for Energy, by Brother H. Conrad Krupp, F.S.C. 57:694-700, De '57.

Fundamental Advances in Physics of the Last Ten Years, by Franzo H. Crawford. 32: 542-45, My '32.

Further Explorations in Space, by Julius Sumner Miller. 52:713-4, De '52.

Heat Your House With a Refrigerator, by G. E. Owen. 36:20-4, Ja '36.

Heavy Water, by Saylor C. Cubbage. 37:1034-6, De '37.

Hide and Seek With Radium, by R. L. Doan. 27:910-2, De '27.

High-Speed Motion Pictures, by Harold E. Edgerton. 35:646-7, Je '35.

High Vacuum, by M. N. States. 34:251-65, Mr '34.

Historical Milestones in the Progress of Artificial Radioactivity, by Sister M. Rita Clare. 41:307-10, Ap '41.

How Physics Laws Control the Fighting Weapons of the Navy, by Ralph S. Parr. 33: 207-13, Fe '33.

Imprisoned Light, by Edwin E. Slosson. 29: 106, Ja '29.

Indoor Humidity, by Fred D. Barber. 16:52-6, Ja '16.

Inside the Atom. (Series; See Miscellaneous Section.)

Is the Weight of Iron Affected by Magnetization?, by S. R. Williams. 51:433-42, Je '51.

Isaac Newton's Experiments on Light, by Florian Cajori. 28:618-26, Je '28.

Length of Path of Light Traveled by Reflection from Mirrors, by James S. Stevens. 19: 542-3, Je '19.

Light Ray Reproduction of Sound, by A. H. Gould. 30:911-9, N '30.

Lightning and the Light-Active Receiver in Television, by John Mills. 28:244-6, Mr '28.

Liquid Hydrogen and Helium, by James Dewar. 2:311-9, De '02.

Magnetic Phenomena, by S. R. Williams. 15: 474-9, Je '15.

Magnetism. (Series; See Miscellaneous Section.)

Magnetism and Some Interesting Magnets, by Glen W. Watson. 59:561-9, O '59.

Man's Energy Source, by Gerald Osborn. 58: 223-7, Mr '58.

Measuring Noises in Everyday Life, by Frederick A. Saunders. 38:701-4, Je '38.

Metals for Electronics, by B. Clifford Hendricks. 56:742-6, De '56.

Michael Faraday, Searcher for Truth for Its Own Sake, by Elliot R. Downing. 32:509-18, My '32.

Modern Physics, by C. F. Hagenow. 28:717-30, O '28.

Motion of Electrons, by Arthur A. Blanchard. 27:690, O '27.

Natural Color Photography, by Arthur P. Murray. 35:747-55, O '35.

Nature's Great and Small and Man's Measurement of Both, by Wm. T. Skilling. 28:858-63, N '28; 28:959-65, De '28; and 29:44-9, Ja '29.

New Developments in Atomic Energy, by Warren J. McGonnagle. 53:187-98, Mr '53.

New Developments in Photography, by Charles A. Savage. 41:370-5, Ap '41.

New Light on Cosmic Rays, by Richard A. Beth. 34:762-65, O '34.

New Principles in Domestic Oil Burners, by Percy S. Brayton. 31:861-3, O '31.

New Theories of Matter in Relation to Chemical and Physical Theory, by Charles T. Knipp. 6:111-8, Fe '06; and 6:161-7, Mr '06.

Newton and His Principia Mathematica, by William A. Gager. 52:258-62, Ap '52.

Newton's Blind Apostle, by Sister M. Thomas A'Kempis. 34:569-73, Je '34.

Non-Destructive Testing by the Magnetic Particle and Fluorescent Penetrant Methods, by Robert C. Eichin. 44:130-5, Fe '44.

Note on the Comparative Velocities of Points on a Rolling Wheel, by M. H. Pearson. 21: 496, My '21.

Notes on the Stratosphere, by J. C. Hunsaker. 35:639-45, Je '35.

Notes on the System of Crystallization and Proper Cutting of the Synthetic Corundum Gems, by Frank B. Wade. 14:246-55, Mr '14.

On a Misconception of the Relativity of Time, by Luise Lange. 27:500-6, My '27.

On the Concepts of Mass and Force, by J. Rud Nielsen. 29:59-64, Ja '29.

On the "Quantum" Theory of Light, by L. P. Sieg. 14:221-8, Mr '14; and 14:315-22, Ap '14.

Optical Glass Manufacture in America, by L. M. Potter. 19:181-5, Fe '19.

Oscillations from the Electric Arc, by Charles F. Bowen. 13:492-8, Je '13.

Pascal's Mountain Experiment, by Willard J. Fisher. 18:67-75, Ja '18.

Pascal's New Experiments on Vacuum, translated from the French by Willard J. Fisher. 20:723-31, N '20.

Pascal's Principle, by Wm. S. Franklin. 27: 278-9, Mr '27.

Past and Present Theories of Electricity, by A. P. Carman. 3:125-35, Je '03.

Physics of Metals, by D. S. Eppelsheimer. 41:680-2, O '41.

Pictures By Wire, by Charles T. Schrage. 27:250-4, Mr '27.

Polarized Roentgen Radiation, by M. Wistar Wood. 30:761-9, O '30.

Powdered Metals in Modern Life, by Robert Steinman. 41:131-9, Fe '41.

Production of Mirrors by Evaporation of Metals in a Vacuum, by Alfred B. Focke. 40:670-1, O '40.

Progress in Exact Science, by E. E. Watson. 39:824-36, De '39.

Pupin's Invention, by J. W. Patterson, Jr. 2:279-81, N '02.

Radar - The Invisible Eyes of War - Will Safeguard Civilian Life in Peace-Time, by Robert N. Farr. 45:436-8, My '45.

Radio's Relation to Victory, by J. G. Harbord. 43:126, Fe '43.

Recent Achievements in Color Photography, by Herbert H. Johnson. 37:473-5, Ap '37.

Recent Advances in the Physics of Water, by George Flowers Stradling. 1:210-2, Se '01; 1:246-8, O '01; and 1:293-5, N '01

Recent Developments in Acoustics of Buildings, by F. R. Watson. 17:680-3, N '17.

Recent Developments in Out-of-Door Illumination, by Harold Blair. 16:57-63, Ja '16.

Recent Developments in Space Research, by A. H. Shapley. 60:251-8, Ap '60.

Recent Developments in the Fields of Electronics and Acoustics, by Frederick V. Hunt. 32:545-54, My '32.

Recent Discoveries Concerning the Interaction of Light and Matter, by J. Rud Nielsen. 29:394-403, Ap '29.

Recent Discoveries Concerning X-Rays, by Earl R. Glenn. 15:556-63, O '15.

Relativity and Ether Drift, by James S. Stevens. 27:569-75, Je '27.

Remarks on the Conservation of Mass-Energy, by Julius Sumner Miller. 53:344, My '53.

Remarks on the History of Cosmic Radiation, by Robert A. Millikan. 30:872-4, N '30.

Remarks on the Stability and Spinning of Airplanes and Parachutes, by H. Bateman. 27:472-80, My '27.

Research at Low Temperatures, by Harold T. Gerry. 38:214-8, Fe '38.

Revision of Physical Theory, by Henry S. Carhart. 2:371-86, Ja '03.

Robert H. Goddard, Father of the Liquid Fuel Rocket, by Enoch J. Haga. 60:585-8, N '60.

Shunt Generator, by E. C. Mayer. 17:113-9, Fe '17; and 17:223-8, Mr '17.

Shunt Motor, by E. C. Mayer. 18:828-37, De '18.

Sir Isaac Newton and the Interruption of His Study of Gravity, by Daniel W. Hering. 27:956-60, De '27.

Some Absurdities in the Usual Discussion of Work and Power, by William S. Franklin. 27:168-9, Fe '27.

Some Atomic Particles and the Meson, by James I. Shannon. 49:523-33, O '49.

Some Contributions of the Bell Laboratories in the Development of Communications, by Emmett C. Belzer. 50:652-4, N '50.

Some Curious Effects of a Rotating Magnetic Field, by N. F. Smith. 27:617-9, Je '27.

Some Developments in Communication, by Joseph W. Cassidy. 31:865-70, O '31.

Some Properties of Matter at Low Temperatures, by J. S. Shearer. 6:452-61, Je '06.

Some Recent Advances in Physical Science, by Frederick H. Getman. 7:372-82, My '07.

Some Recent Physical Theory, by Albert P. Carman. 13:1-9, Ja '13.

Sound Proofing in Buildings, by F. R. Watson. 22:631-4, O '22.

Sources of Energy, by A. A. Knowlton. 29:260-6, Mr '29; and 29:461-8, My '29.

Stephen Gray's Parabolic Mirror, by E. H. Johnson. 23:70-2, Ja '23.

Superchargers for Aviation, by Sanford A. Moss. 43:61-2, Ja '43.

The ABC of Aeroplane Mechanics, by Harvey N. Davis. 11:532-41, Je '11.

The Acoustics of Auditoriums and Classrooms, by Richard L. Brown. 39:461-7, My '39.

The Arrangement of the Electrons in the Outer Portion of the Atom, by Walter O. Walker. 29:233-44, Mr '29; and 29:380-7, Ap '29.

The Astronomy of the Atom, by Robert A. Millikan. 24:810-4, N '24.

The Cartesan Diver Drowned, by B. C. Zimmerman. 23:53, Ja '23.

The Chemistry of Power, by B. Clifford Hendricks. 27:702-7, O '27.

The Conservation of Energy, and the Direction of Physical and Chemical Processes, by H. M. Reese. 26:856-66, N '26.

The Construction of a Model of Nature and the Limits of Physical Theories, by Arthur W. Rücker. 1:233-8, O '01.

The Control and Beneficial Use of Atomic Energy, by Samuel K. Allison. 48:259-68, Ap '48.

The Cyclical Nature of the Universe, by Norman E. Gilbert. 30:562-70, My '30.

The Dance of Energy, by Sue Avis Blake. 32: 769-72, O '32.

The Detection of Atomic and Nuclear Radiations, by Warren J. McGonnagle. 55:331-7, My '55.

The Development of Radio Communication, by L. A. Hazeltine. 22:834-8, De '22.

The Direction of the Electric Current, by A. Greenfield. 46:124, Fe '46.

The Effect of Dirt on Lighting Fixtures, by Olin D. Parsons. 16:826-7, De '16.

The Efficiency of Electrical Heating, by W. J. Radle and R. G. Wilson. 41:220-5, Mr '41.

The Electric Arc, by John A. Hodge. 10: 419-27, My '10.

The Electric Furnace for Steel, by L. A. Touzalin. 12:177-81, Mr '12.

The Evolution of Physical Concepts, by E. H. Johnson. 30:283-91, Mr '30.

The Fine Structure of the Balmer Series Lines of Hydrogen, by Norton A. Kent. 32: 204-6, Fe '32.

The First Two Years of the Space Age, by Nathan L. Nichols. 60:57-62, Ja '60.

The Fundamental Atomic Quantities and Atomic Weight, by Duane Roller. 29:961-2, De '29.

The History of the Introduction of the Idea of Centrifugal Force, by Murray C. Hobart. 11:685-92, N '11.

The Intellectual Rise in Electrical Science, by Rogers D. Rusk. 21:631-7, O '21.

The Last Word in Telephotography, by John Mills. 35:161-9, Fe '35.

The Magnetic-Mechanical Analysis of Ferromagnetic Substances, Its Bearing on Theories of Magnetization, by S. R. Williams. 22:859-71, De '22.

The Magnetic Variometer, by A. L. Fitch. 26:750-3, O '26.

The Mathematics and Science Beyond Air Conditioning, by Roy M. Moffitt. 35:416-23, Ap '35.

The Measurement of Color and Lustre as Applied to Textile Fabrics, by A. Edwin Wells. 30:1005-10, De '30.

The Mechanics of Flight, by Carl Runge. 10:181-90, Mr '10.

The Meng, by F. M. Denton. 31:1078, De '31.

The Nature of Light, by Franz H. Crawford. 30:65-9, Ja '30.

The Navy Improves Flight Equipment, by Allen Long. 54:573, O '54.

The Photographic Reproduction of Color, by Carl W. Miller. 40:667-70, O '40.

The Position of Atomic Theory, by Wm. Lloyd Evans. 7:547-56, O '07.

The Progress of Atomic Physics, by Arthur Haut. 33:253-65, Mr '33.

The Quantum Theory, by H. M. Reese. 26:745-50, O '26.

The Raman Effect, by J. Rud Nielsen. 29: 581-9, Je '29.

The Relation of Flue Gas Analysis to the Efficiency of the Oil Burner, by George T. Parker and H. A. Geauque. 24:745-8, O '24.

The Relation of Physics to Medicine, by Winfield S. Hall. 2:443-6, Fe '03.

The Relation of Romer and Fahrenheit to the Thermometer, by Willard J. Fisher. 18:634-51, O '18.

The Smallest Thing in the World, by C. E. Ronneberg. 29:165-9, Fe '29.

The Structure of the Atom, by Phillips H. Abright. 25:823-7, N '25.

The Structure of the Nucleus of the Atom, by Walter O. Walker. 28:936-9, De '28.

The Telephone That Jack Built, by O. E. Underhill. 27:260, Mr '27.

The Theory of Relativity, by V. F. Lensen. 32:961-70, De '32.

The Volta Effect Produced With a Metal and an Electrolyte, by Philo F. Hammond. 17: 414-6, My '17.

The Use of Spectacle Lenses for the Correction of Refractive and Other Errors of the Eyes and the Instruments Used for Determining Such Errors, by Arthur F. Amadon. 12: 492-7, Je '12.

The Window of the World, by Harold P. Pluimer. 59:686-8, De '59.

Thermionic Lag and a Method for Its Measurement, by Richard Edwin Lee. 19:444-52, My '19.

Thinking Machines and Your Telephone, by Howard Bamman. 55:109-19, Fe '55.

Time and Space - A Speculation, by Arthur E. Haynes. 12:715-6, N '12.

Time: Mathematical and Geocentric, by Philip A. Constantinides. 35:44-54, Ja '35; and 35:319-409, Ap '35.

Units of Mass and Force, by Gwilym E. Owen. 30:925-6, N '30.

Various Low-Temperature Researches, by James Dewar. 2:438-43, Fe '03.

What Are Cosmic Rays?, by Sister Helene Ven Horst. 53:687-92, De '53.

Why It Is Unsafe to Swim Near a Pier During a Thunderstorm, by Morris Wistar Wood. 33: 552-4, My '33.

Words Over Waves, by Roger K. Harper. 51: 377-85, My '51.

X-Ray Studies of the Solid Stars, by Bertram Warren. 31:206-14, Fe '31.

Miscellaneous

A Camera and Object Holder, by H. Clyde Krenerick. 8:656-7, N '08.

A Christmas Maze to Occupy Your Holidays, by A. N. Tucker. 47:761, De '47.

A Comment on the Use of Polaroid in Automobiles, by Edward B. Cooper. 40:50, Ja '40.

A Convenient Copying Stand, by Fred A. Holtz. 5:544-6, O '05.

A Discussion of Sears, Roebuck and Company's Thirteen Period Calendar, by C. L. Schenk. 36:163-73, Je '36.

A Fantasy of 1956, by Edward C. Colin. 56: 569-71, O '56.

A Historian Views Science, by Louis Martin Sears. 45:356-65, Ap '45.

A New Paradise, by Harold B. Shinn. 21:238-41, Mr '21.

A Seasonal Breakage of Mainsprings in Watches, by S. R. Williams. 21:737-43, N '21.

A Successful Business, by Helena Lorenz Williams. 26:947, De '26.

A Summer in Spain, by Helen Turner. 35:507-12, My '35.

Albert Einstein, by Walter H. Carnahan. 50: 171-4, Mr '50.

Alfred Payson Gage, by Rufus P. Williams. 3:49-52, My '03.

Analysis and Prevention of Podiatric Difficulties of Elementary School Children, by J. E. Titus. 42:421-6, My '42.

An Answer to "Arguments Against Universal Adoption of the Metric System," by C. J. Arnold. 51:310-5, Ap '51.

An Appreciation of the Work of Luther Burbank, by I. N. Mitchell. 7:182-5, Mr '07.

Anticipations Regarding Communications Between Men, by Julius Sumner Miller. 53: 286, Ap '53.

Are Our Cities Worth Saving?, by Carl R. Dortch. 49:217-25, Mr '49.

Bermuda - From Tempest Isle to Tourist Haven, by Minnie E. Lamaire. 54:509-19, O '54.

Biography of George Albert Wentworth, by B. F. Finkel. 7:485-8, Je '07.

Bisulfite Wood Pulping, by B. Clifford Hendricks. 53:653-5, N '53.

Building Better Boys at Camp Roosevelt, by Lillian Ewertsen. 23:166-8, Fe '23.

Calendar Progress, by Vincent C. O'Leary. 51:22-6, Ja '51.

Camp Roosevelt: Man Maker, by Frank C. Jacoby. 19:581-9, O '19.

Can You See a Hole?, by Benjamin C. Gruenberg. 26:649, Je '26.

Carrying a Camera on a Bicycle, by Rollin Blackman. 11:646-7, O '11.

Chart of the Sciences, by D. H. Selchow and W. Segerblom. 22:707-15, N '22.

China Today, by Floyd Hurlbut. 49:127-33, Fe '49.

Clear as a Bell, by Donald H. Painter. 44: 722-3, N '44.

Conservation of Oil, by Whitney M. Elias. 49:173-80, Mr '49.

Darwin and Lincoln, by Edward C. Colin. 44: 412-24, My '44.

Dramatic Moments in the History of Science, by B. Clifford Hendricks. 49:703-6, De '49.

Financing Fumes, by B. Clifford Hendricks. 56:193-6, Mr '56.

Fur Farming, by L. N. Silverman. 39:375-7, Ap '39.

German Prosperity, by Nicholas Knight. 13: 446, My '13.

Good Engineering Materials Should Not Be Misused, by Franklin L. Everett. 52:95-101, Fe '52.

Greenland - Arctic Wonderland, by Robert C. Whitney and Dorothy Whitney. 52:421-8, Je '52.

Grimshel's Laboratory, by N. Henry Black. 15:670-8, N '15.

Home Gardening in Fairbanks, Alaska, by Edna M. Gueffroy. 37:12-22, Ja '37.

Host, by Walter H. Carnahan. 28:604-8, Je '28.

How Leonardo Got a Job, by John L. Clark. 40:901, De '40.

Illinois Coal and the New Illinois Waterway, by Esther W. Utzig. 26:131-41, Fe '26.

Incidental Impressions of England, by Harriet A. Steeper. 26:510-1, My '26.

Initiation Ceremony of the Edisonian Science Club, by Louis A. Astell. 28:771-4, O '28.

John Lossen Pricer in His Relation to Natural Science, by H. J. Van Cleave. 20:652-4, O '20.

Konstantin Tsiolkovsky, Pioneer Astronaut, by Enoch J. Haga. 60:1-3, Ja '60.

Laboratories of the Massachusetts State Board of Health and the Methods of Analysis Employed There. 4:129-36, Je '04.

Let's Travel the Arkansas, by A. Winifred Elliott. 51:515-9, O '51.

Metric Sports, by Watson Davis. 33:72, Ja '33.

1941: A Record Year in Shipping on the Great Lakes, by Villa B. Smith. 42:307-12, Ap '42.

Of Millions and Millionths, by Elsa H. Muuss. 46:795-9, De '46.

On Flying Saucers and Other "Unusual" Aerial Objects, by Julius Sumner Miller. 53: 716, De '53.

On the Spot or in the Limelight, by Donald W. Lentz. 51:358, My '51.

Our Calendar, by C. N. Mills. 28:168-71, Fe '28.

Our Heritage, the Land, by Louis Bromfield. 52:25-38, Ja '52.

Our Virgin Planet, by Aaron Goff. 53:173-7, Mr '53.

Recollections of Fittig and the Strassburg Laboratory, by Nicholas Knight. 11:202-4, Mr '11.

Roman Surveying, by Louis C. Karpinski. 26: 853-5, N '26.

Rome's Contribution to Natural Science, by A. Postl. 53:358-62, My '53.

Science During the Scholastic Period, by Anton Postl. 53:703-6, De '53.

Science in the Law Enforcement Field, by John Edgar Hoover. 46:599-609, O '46.

Short Stories of Great Inventions, by A. L. Jordan. 17:53-7, Ja '17; 17:130-33, Fe '17; 17:209-13, Mr '17; and 17:315-20, Ap '17.

Snow Rollers at Canton, N. Y., by M. L. Fuller. 8:41-3, Ja '08.

Some Contributions of the Bell Laboratories in the Development of Communications, by Emmett C. Belzer. 50:652-4, N '50.

Some Interesting History About Dr. Joseph Priestley, by Leslie Hart. 17:526-8, Je '17.

Some Roman Building Materials, by Nicholas Knight. 9:347-8, Ap '09.

Sundials, by R. Newton Maynall. 44:666, O '44.

Strinivasa Ramanujan, by Julius Sumner Miller. 51:637-45, N '51.

The Columbia Basin Project, by Otis W. Freeman, Katherine Burgess, Edith Campbell and Barbara Deffert. 48:3-20, Ja '48.

The Discriminant, by Richard Morris. 26: 709, O '26.

The Facts About Perry and His Idea, by John C. Packard. 10:410-3, My '10.

The Glass of Fashion, by Jean Broadhurst. 32:721-4, O '32.

The History of Airplanes, by Ruth A. Launie. 47:359-68, Ap '47.

The Human Side of Science, by Harrison Hale. 23:820-4, De '23.

The Influence of the Transcontinental Highways of the United States on the Price of Wheat, by N. A. Bengston. 15:505-14, Je '15.

The Leaning Tower of Pisa, by W. F. Schaphorst. 30:170, Fe '30.

The "Lithographiae Wircebrugensis" of Beringer, by Leon Augustus Hausman. 16:573-84, O '16.

The Metric System, by J. T. Johnson. 44: 717-21, N '44.

The Metric System of Weights and Measures and Its Relation to Inter-American Commerce, by F. Suastegui. 27:272-5, Mr '27.

The Monument to Robert Bunsen, by Nicholas Knight. 8:736-7, De '08.

The New Fur Industry in Louisiana, by Julius Sumner Miller. 51:347-8, My '51.

The Role of Air Transportation in the Future, by M. W. Arnold. 46:141-8, Fe '46.

The Rule of Thumb, by Frederic L. Roberts. 27:86-7, Ja '27.

The Scientific Background of Baking, by C. B. Morison. 26:79-85, Ja '26.

The South Looks to Its Resources, by Richard L. Weaver. 50:565-8, O '50.

The Story of an English Christmas Tree, by Shirley D. Babbitt. 32:736-44, O '32.

The Use of the Slide Rule in Mercantile Establishments, by Zena Brown. 27:390-6, Ap '27.

Timber's Tribute to Man, by B. Clifford Hendricks. 52:367-71, My '52.

Two Laws to Control Cats, by Horace Gunthorp. 19:745-7, N '19.

Use of the Incandescent Lamp in Stereopticons, by C. E. Egeler. 21:838-43, De '21.

What Are Patents?, by William S. Hill. 44: 605-11, O '44.

What is a Hole?, by Hanor A. Webb. 26:282-3, Mr '26.

What is Unfamiliar About the Familiar Tin Can?, by L. G. Weimer. 39:500-9, Je '39.

Who Gets Credit for Scientific Achievement?, by Morris Goran. 60:299-300, Ap '60.

Your Journal, by Glen W. Warner. 44:206-12, Fe '44.

GENERAL PEDAGOGY

A Convenient Copying Stand, by Fred A. Holtz. 5:544-6, O '05.

A Critique of Science, by Carroll D. W. Hildebrand. 45:395-402, My '45.

A Few Articles the Tinner Can Make for the Science Department, by W. E. Bowers. 3:93-5, My '03.

A Guide to the Equitable Grading of Students, by Winfield Scott Hall. 6:501-10, Je '06.

A Method of Keeping Laboratory Notes, by Franklin Turner Jones. 3:449-50, Fe '04.

A Method of Making Wall Charts, by N. A. Harvey. 14:516-7, Je '14.

A Morality Code, by Charles H. Smith. 18: 771-7, De '18.

A Note on the Anti-Evolutionist Attitude, by Stephen G. Rich. 23:168-9, Fe '23.

A Plea for More Effective Science Teaching, by Floyd L. Darrow. 14:397-401, My '14.

A Retrospect and a Vision, by William E. Stark. 9:284-90, Mr '09.

A Science Club in a High School, by Louis C. Feldmann. 18:54-6, Ja '18.

A Simplified Table for Otis I. Q., by H. V. Main. 28:739, O '28.

A Source of Academic Inefficiency, by Arthur E. Haynes. 13:584-6, O '13.

A Study of an Attempt at Uniformity in Grading Students, by Elliot K. Downing. 13:290-3, Ap '13.

A Study of the Factors in the Efficiency of Boys' and Girls' Clubs, by W. W. Charters and James H. Greene. 21:335-41, Ap '21.

A Suggestion for Laboratory Notebooks, by N. M. Grier. 15:737-8, N '15.

Academic Pre-Training for Aviation Cadets. 42:577, Je '42.

Adam to Atom, by Kenneth E. Anderson. 48: 340, My '48.

Adjustment of the Common School Curriculum to the Vocational Needs of Today, by W. N. Hailman. 13:382-91, My '13.

Adopt the Metric System, by H. N. Kauffman. 19:82-4, Fe '19.

Ain't it Awful?, by Donald Cochrane. 47: 511, Je '47.

Air Conditioning in School Buildings, by S. R. Lewis. 20:448-54, My '20.

Almost Apparatus, by H. W. Farwell. 15: 776-9, De '15.

Amorality in Industry, by Gustave Lippman. 37:48-54, Ja '37.

An Experience and a Reflection, by B. W. Peet. 5:538-9, O '05.

An Experiment in Science Teaching, by Floyd L. Darrow. 13:701-5, N '13.

Another Sugaring Off, by Wm. Vinal. 34: 157, Fe '34.

Business Methods in the Selection of Laboratory Apparatus, by Ernest Carroll Faust. 18:16-8, Ja '18.

Challenges to Education, by Harold Pluimer. 58:562-4, O '58.

Chemical Nomenclature and Pronunciation, by Norman J. Taylor. 20:850-2, De '20.

Civilization in a Quandary, by C. C. Furnas. 50:87-100, Fe '50.

Classification as an Element of Education, by N. A. Harvey. 1:451-5, Fe '02.

Classification of School Subjects Based on Educational Function and Value, by Lyman C. Wooster. 20:550-3, Je '20.

College Education Pays, by Jos. F. Wright. 21:242-4, Mr '21.

Committee on the Place of Science in Education of the American Association for the Advancement of Science. 38:603, My '38.

Concerning Psychologic Tests in the Army and Their Meaning for the Teacher, by J. W. A. Young. 19:544-8, Je '19.

Conditions and Equipment in Secondary Schools, by Charles R. Allen. 10:599-604, O '10.

Continuation Schools: Should the Teaching be Considered of Elementary or Secondary School Grade?, by John Crowell. 21:791-6, N '21.

Democracy, A Biological Problem, by M. F. Guyer. 29:974-6, De '29.

Democracy and Education, by William Borgers. 19:177-80, Fe '19.

"Detested Science" in High School, by Albert C. Herre. 11:168, Mr '11.

Do Science Teachers Appreciate Their Opportunity?, by Otis W. Caldwell. 8:527, Je '08.

Education and Environment, by Winfred G. Leutner. 40:499-502, Je '40.

Educational Measurement and the Teaching of Science, by Dean M. E. Haggerty. 23:103-11, Fe '23.

Educational Press Association of America, by John MacDonald, et al. 10:517, Je '10.

Educational Progress of the South, by Charles A. Shull. 7:756-9, De '07.

Election in High School Science, by Percy E. Rowell. 13:422-6, My '13.

English Expression in Its Relation to Teaching of Science, by R. R. Smith. 20:341-6, Ap '20.

Essentials of Supplemental Education with Reference to Science Teaching, by Walter M. Wood. 5:277-9, Ap '05.

European Study Tour in Comparative Education, by Wm. Reitz. 55:339, My '55.

Evidence Evaluation, by B. Clifford Hendricks. 60:36-40, Ja '60.

Examples of Classification in School Work, by C. Elliott. 10:785-7, De '10.

Five Years of the Industrial Council, by George Greisen Mallinson. 56:537-40, O '56.

Foreign Trade and the Metric System. 10: 318-22, Ap '10.

Foundations, Industry and Education, by Harold G. Bowen. 52:195-209, Mr '52.

Geography at the Peace Conference, by W. M. Gregory. 19:561-22, Je '19.

Half-Learning and the Way Out, by Henry C. Morrison. 22:237-45, Mr '22.

High School and College Duplication in Science: Educational Efficiency, by Geo. J. Miller. 14:749-54, De '14.

How the Public Will Solve Our Problems of Science Teaching, by John F. Woodhull. 9: 267-80, Mr '09.

How to Make a Lantern Slide Camera, by W. F. Watson. 3:171-3, Je '03.

How Uncle Sam Got a Decimal Coinage, by William H. Seaman. 2:232-36, O '02; and 2:292-7, N '02.

Important for Our Children, by Harold E. Stassen. 47:388, Ap '47.

In the Class Room, by Geo. D. Hubbard. 3: 320-2, De '03.

In What Order Ought Courses in Science to be Introduced Into the High School Curriculum?, by W. Whitney. 11:95-102, Fe '11.

Industrial Education in Secondary Schools, by W. E. Hicks. 6:736-44, De '06.

Interdependence of Free Mind, Science and Democracy, by Harold H. Punke. 54:39-49, Ja '54.

Is the Course for College Entrance Requirements Best for Those Who Go No Further?, by James G. Needham. 3:483-92, Mr '04.

Is This an Age of Science?, by Henry Flury. 28:74-6, Ja '28.

Japanese Reparations and Philippine Reconstruction, by Alden Cutshall. 48:399-400, My '48.

Laboratory Equipment in Secondary Schools, by T. Quincy Browne, Jr. 8:689-95, N '08.

Laboratory Storage and Filing Appliances, by W. L. Eikenberry. 18:500-5, Je '18.

Laboratory Teaching, by Chas. W. Eliot. 6: 703-7, N '06.

Laboratory Teaching, by H. N. Goddard. 16: 710-9, N '16.

Lantern Slides, by Fred L. Holtz. 6:262-7, Ap '06.

Lessons Drawn from the History of Science, by Florian Cajori. 8:85-96, Fe '08.

List of Publications of the Central Committee and the National Sub-Commissions. 13: 713-25, N '13.

Matching People and Jobs, by Arthur S. Greiner. 47:173-80, Fe '47.

Meaning of Science in Secondary Schools, by Charles H. Judd. 12:87-98, Fe '12.

Method in Science Teaching, by Louis Murbach. 2:12-8, Mr '02.

Mr. Dooley, 2D, on the Discussion Method, by Jean Broadhurst. 18:681-4, N '18.

National Science Committee at Work, by Harold H. Metcalf. 39:302-4, Ap '39.

National Search for Scientific Talent, by Harlow Shapely. 44:666, O '44.

Needed Adjustments Between Secondary Schools and Colleges, by Otis W. Caldwell. 12:126-30, Fe '12.

Notes on Notebooks, by John G. Coulter. 15:294-301, Ap '15.

Notes on Recent Advances in Zoology II, by Maurice A. Bigelow. 3:454-6, Fe '04.

On Rainy Days, by Alfreda Raster. 25:169-70, Fe '25.

On Science Teaching. (Series; See Miscellaneous Section.)

On the Teaching of Natural Science in the Secondary Schools, by Man Verworn. 9:813-20, De '09.

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8:79-80, Ja '08; 168, Fe '08; 343, Ap '08; 532, Je '08; 612, O '08; 713, N '08; and 796-7, De '08.

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25:102, Ja '25; 214, Fe '25; 320, Mr '25; 440, Ap '25; 548-50, My '25; 664, Je '25; 753-4, O '25; 880, N '25; and 1004, De '25.

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30:100-2, Ja '30; 214, Fe '30; 336-8, Mr '30; 450-2, Ap '30; 584-6, My '30; 716-8, Je '30; 838-43, O '30; 976-8, N '30; and 1078, De '30.

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32:106, Ja '32; 330-2, Mr '32; 450-2, Ap '32; 572, My '32; 678, Je '32; 802-6, O '32; 919-20, N '32; and 1028-9, De '32.

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37:119-20, Ja '37; 365-6, Mr '37; 490-1, Ap '37; 747-9, Je '37; 868-73, O '37; 999-1000, N '37; and 1135-6, De '37.

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46:93-4, Ja '46; 191-2, Fe '46; 291-2, Mr '46; 391, Ap '46; 490, My '46; 587-8, Je '46; 680-3, O '46; and 786-7, N '46.

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48:81, Ja '48; 247-8, Mr '48; 327-8, Ap '48; 411-2, My '48; 495-6, Je '48; 579-80, O '48; 664-7, N '48; and 749-50, De '48.

49:80, Ja '49; 166-7, Fe '49; 250-1, Mr '49; 335-7, Ap '49; 428-9, My '49; 505-6, Je '49; 591-5, O '49; 681-3, N '49; and 769-70, De '49.

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51:76-7, Ja '51; 244-5, Mr '51; 328-9, Ap '51; 410-2, My '51; 500-2, Je '51; 582-6, O '51; 666-9, N '51; and 760-2, De '51.

52:77-8, Ja '52; 246-7, Mr '52; 324-5, Ap '52; 412-3, My '52; 496-8, Je '52; 580-5, O '52; 667-8, N '52; and 756-8, De '52.

53:76-7, Ja '53; 160-2, Fe '53; 329-31, Ap '53; 416-7, My '53; 497-9, Je '53; 577-81, O '53; 666-8, N '53; and 752-3, De '53.

54:74-5, Ja '54; 163, Fe '54; 242, Mr '54; 322-3, Ap '54; 417-8, My '54; 498-9, Je '54; 579-84, O '54; and 673-4, N '54.

55:74-6, Ja '55; 161-2, Fe '55; 242-4, Mr '55; 408-11, My '55; 493-5, Je '55; 572-6, O '55; 664-5, N '55; and 755-6, De '55.

56:77-8, Ja '56; 158, Fe '56; 250, Mr '56; 326-8, Ap '56; 409-10, My '56; 501-2, Je '56; 577-81, O '56; 675-6, N '56; and 763, De '56.

57:84-5, Ja '57; 162, Fe '57; 244, Mr '57; 321-2, Ap '57; 403-5, My '57; 498-500, Je '57; 580-2, O '57; 667-9, N '57; and 748-9, De '57.

58:76-9, Ja '58; 158-9, Fe '58; 239-41, Mr '58; 326-8, Ap '58; 412-4, My '58; 496-7, Je '58; 577-80, O '58; 661-5, N '58; and 748-9, De '58.

59:78-9, Ja '59; 163, Fe '59; 244-5, Mr '59; 329, Ap '59; 417-9, My '59; 505-7, Je '59; 581-8, O '59; 666-9, N '59; and 751-6, De '59.

60:82-3, Ja '60; 164-6, Fe '60; 247-9, Mr '60; 327-8, Ap '60; 413-4, My '60; 499-501, Je '60; 580-2, O '60; 660-5, N '60; and 741-5, De '60.

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1:44-8, Mr '01; 98-102, Ap '01; 161-3, My '01; 223-6, Se '01; 274-9, O '01; 329-33, N '01; and 496-8, Fe '02.

2:48, Mr '02; 116-7, Ap '02; 181-4, My '02; 238-41, O '02; 360, De '02; 416-8, Ja '03; and 538, Mr '03.

3:110-3, My '03; 180-2, Je '03; 299, N '03; 365-6, De '03; 415-7, Ja '04; 523-5, Mr '04; and 3:37, Ap '03 (Mathematical Supplement).

4:46, Ap '04; and 105, My '04.

5:220-1, Mr '05; 305-6, Ap '05; 505-7, Je '05; 592-4, O '05; 681-3, N '05; and 777--9, De '05.

6:76, Ja '06; 158-60, Fe '06; 244-6, Mr '06; 331-3, Ap '06; 423-6, My '06; 535-49, Je '06; 635-8, O '06; 719-20, N '06; and 798-800, De '06.

7:73-82, Ja '07; 161-4, Fe '07; 243, Mr '07; 343-4, Ap '07; 435-6, My '07; 545-6, Je '07; 621-30, O '07; 709-16, N '07; and 792-800, De '07.

8:80-4, Ja '08; 169-72, Fe '08; 343-6, Ap '08; 435-40, My '08; 532-6, Je '08; 613-5, O '08; 714-6, N '08; and 797-800, De '08.

9:95-102, Ja '09; 200-2, Fe '09; 320-2, Mr '09; 412-6, Ap '09; 500-2, My '09; 623-8, Je '09; 707-15, O '09; 807-11, N '09; and 932, De '09.

10:90-2, Ja '10; 177-80, Fe '10; 275-8, Mr '10; 365-8, Ap '10; 465-8, My '10; 558-67, Je '10; 647, 652, 654, O '10; 749-60, N '10; and 842-6, De '10.

11:88-94, Ja '11; 179-84, Fe '11; 280-4, Mr '11; 387-92, Ap '11; 476-86, My '11; 574-82, Je '11; 669-78, O '11; 764-76, N '11; and 859-70, De '11.

12:77-86, Ja '12; 164-70, Fe '12; 254-62, Mr '12; 350-4, Ap '12; 444-6, My '12; 538-46, Je '12; 641-52, O '12; 733-42, N '12; and 819-28, De '12.

13:82-8, Ja '13; 180-2, Fe '13; 266-8, Mr '13; 364-8, Ap '13; 452-60, My '13; 548-54, Je '13; 638-46, O '13; 744-50, N '13; and 838-44, De '13.

14:86-96, Ja '14; 192, Fe '14; 272-5, Mr '14; 368-74, Ap '14; 462-6, My '14; 540-6, Je '14; 635-9, O '14; 740-4, N '14; and 824-40, De '14.

15:85-92, Ja '15; 182-4, Fe '15; 265-71, Mr '15; 366-70, Ap '15; 458-64, My '15; 539-48, Je '15; 641-8, O '15; 744-50, N '15; and 838-46, De '15.

16:88-94, Ja '16; 182-90, Fe '16; 277-81, Mr '16; 374-84, Ap '16; 474-80, My '16; 562-4, Je '16; 653-60, O '16; 758-60, N '16; and 850-6, De '16.

17:87-94, Ja '17; 185-8, Fe '17; 274-6, Mr '17; 370-80, Ap '17; 472-4, My '17; 560-6, Je '17; 651-4, O '17; 754-62, N '17; and 858, De '17.

18:96-8, Ja '18; 190-4, Fe '18; 285-90, Mr '18; 482, My '18; 565-70, Je '18; 670-4, O '18; 760-4, N '18; and 866, De '18.

19:96-8, Ja '19; 282-94, Mr '19; 381-2, Ap '19; 478-86, My '19; 573-4, Je '19; 667-9, O '19; 765-72, N '19; and 862-8, De '19.

20:96, Ja '20; 188-92, Fe '20; 278-83, Mr '20; 374-8, Ap '20; 472-6, My '20; 560-2, Je '20; 656-66, O '20; 770-4, N '20; and 866, De '20.

21:100-2, Ja '21; 196-204, Fe '21; 404-8, Ap '21; 508-10, My '21; 602-12, Je '21; 708-14, O '21; 806-8, N '21; and 914-8, De '21.

22:96-102, Ja '22; 202-4, Fe '22; 300, Mr '22; 402-4, Ap '22; 500-2, My '22; 592-600, Je '22; 690-700, O '22; 792, N '22; and 898-902, De '22.

23:92-102, Ja '23; 294-8, Mr '23; 404-8, Ap '23; 510, My '23; 608-12, Je '23; 704-14, O '23; 812-6, N '23; and 908-16, De '23.

24:108-10, Ja '24; 214-22, Fe '24; 310-14, Mr '24; 442-6, Ap '24; 548-58, My '24; 666-70, Je '24; 778-82, O '24; 882-94, N '24; and 1002-6, De '24.

25:104-10, Ja '25; 216-22, Fe '25; 320-6, Mr '25; 440-6, Ap '25; 550-8, My '25; 664-70, Je '25; 776-82, O '25; 882-94, N '25; and 1004-6, De '25.

26:104-8, Ja '26; 212-22, Fe '26; 332-4, Mr '26; 442-6, Ap '26; 556-8, My '26; 672-4, Je '26; 786-94, O '26; 900-8, N '26; and 1016-20, De '26.

27:102-6, Ja '27; 216-20, Fe '27; 328-32, Mr '27; 434-42, Ap '27; 552-6, My '27; 662-8, Je '27; 766-76, O '27; 886-92, N '27; and 996-1004, De '27.

28:106-8, Ja '28; 197-200, Fe '28; 318-26, Mr '28; 436-42, Ap '28; 542-54, My '28; 674-82, Je '28; 786-96, O '28; 904-12, N '28; and 1016-24, De '28.

29:102-4, Ja '29; 216-20, Fe '29; 307-8, Mr '29; 438-42, Ap '29; 546-50, My '29; 662-73, Je '29; 782-90, O '29; 890-902, N '29; and 1010-9, De '29.

30:102-8, Ja '30; 214-8, Fe '30; 338-44, Mr '30; 454-62, Ap '30; 592-600, My '30; 698-710, Je '30; 844-54, O '30; 970-5, N '30; and 1080-94, De '30.

31:98-106, Ja '31; 242-8, Fe '31; 360-4, Mr '31; 484-90, Ap '31; 630-4, My '31; 770-82, Je '31; 890-6, O '31; 1006-16, N '31; and 1132-42, De '31.

32:106-14, Ja '32; 215-22, Fe '32; 332-6, Mr '32; 437-42, Ap '32; 562-70, My '32; 679-88, Je '32; 796-802, O '32; 921-6, N '32; and 1029-36, De '32.

33:113-6, Ja '33; 233-6, Fe '33; 336-43, Mr '33; 458-62, Ap '33; 566-70, My '33; 684-94, Je '33; 793-800, O '33; 908-12, N '33; and 1022-8, De '33.

34:104-8, Ja '34; 210-2, Fe '34; 319-30, Mr '34; 442-6, Ap '34; 548-54, My '34; 671-4, Je '34; 782-6, O '34; 894-900, N '34; and 1008-11, De '34.

35:104-6, Ja '35; 214-20, Fe '35; 328-32, Mr '35; 436-44, Ap '35; 548-54, My '35; 661-6, Je '35; 765-70, O '35; 882-94, N '35; and 996-1006, De '35.

36:103-10, Ja '36; 226-30, Fe '36; 330-6, Mr '36; 452-4, Ap '36; 555-64, My '36; 685-90, Je '36; 812-6, O '36; 926-34, N '36; and 1037-46, De '36.

37:120-6, Ja '37; 240-6, Fe '37; 365-8, Mr '37; 491-500, Ap '37; 615-24, My '37; 749-56, Je '37; 873-9, O '37; 1001-9, N '37; and 1136-8, De '37.

38:104-6, Ja '38; 230-5, Fe '38; 340-6, Mr '38; 596-601, Ap '38; 471-4, My '38; 721-6, Je '38; 830-8, O '38; 946-54, N '38; and 1047-53, De '38.

39:91-9, Ja '39; 194-7, Fe '39; 292-7, Mr '39; 387-96, Ap '39; 486-92, My '39; 587-95, Je '39; 688-95, O '39; 790-6, N '39; and 888-94, De '39.

40:91-9, Ja '40; 196-200, Fe '40; 295-300, Mr '40; 396-400, Ap '40; 492-4, My '40; 597-9, Je '40; 694-9, O '40; 792-4, N '40; and 892-9, De '40.

41:939, Ja '41; 301-4, Mr '41; 403-6, Ap '41; 504-5, My '41; 598-606, Je '41; 701-6, O '41; 802-6, N '41; and 897-907, De '41.

42:100-2, Ja '42; 200-4, Fe '42; 301-5, Mr '42; 394-8, Ap '42; 504-6, My '42; 590-606, Je '42; 700-4, O '42; 806-8, N '42; and 903-6, De '42.

43:89-98, Ja '43; 193-9, Fe '43; 293-9, Mr '43; 489-98, My '43; 593-600, Je '43; 691-6, O '43; 793-4, N '43; and 883-93, De '43.

44:90-6, Ja '44; 189-96, Fe '44; 287-94, Mr '44; 387-92, Ap '44; 484-92, My '44; 582-91, Je '44; 680-6, O '44; 776-83, N '44; and 873-80, De '44.

45:95-8, Ja '45; 196-7, Fe '45; 290-6, Mr '45; 386-94, Ap '45; 488-92, My '45; 585-91, Je '45; 676-80, O '45; 780-3, N '45; and 880-2, De '45.

46:94-8, Ja '46; 192-6, Fe '46; 292-6, Mr '46; 392-4, Ap '46; 490-2, My '46; 588-92, Je '46; 683-9, O '46; 788-91, N '46; and 888-90, De '46.

47:91-6, Ja '47; 201-2, Fe '47; 291-8, Mr '47; 390-5, Ap '47; 495-6, My '47; 585-93, Je '47; 668-76, O '47; 754-60, N '47; and 841-4, De '47.

48:82-4, Ja '48; 160-8, Fe '48; 248-52, Mr '48; 328-33, Ap '48; 412-8, My '48; 496-504, Je '48; 580-7, O '48; 667-74, N '48; and 751-7, De '48.

49:80-6, Ja '49; 167-72, Fe '49; 251-8, Mr '49; 337-44, Ap '49; 429-30, My '49; 507-15, Je '49; 596-600, O '49; 683-5, N '49; and 770-2, De '49.

50:74-84, Ja '50; 167-70, Fe '50; 246-54, Mr '50; 328-40, Ap '50; 410-8, My '50; 501-10, Je '50; 588-93, O '50; 672-5, N '50; and 760-5, De '50.

51:78-83, Ja '51; 163-70, Fe '51; 245-53, Mr '51; 329-37, Ap '51; 412-22, My '51; 503-12, Je '51; 586-93, O '51; 670-9, N '51; and 762-6, De '51.

52:79-84, Ja '52; 167-70, Fe '52; 247-53, Mr '52; 326-34, Ap '52; 414-9, My '52; 498-508, Je '52; 585-92, O '52; 669-78, N '52; and 758-64, De '52.

53:77-86, Ja '53; 162-7, Fe '53; 250-4, Mr '53; 331-8, Ap '53; 418-22, My '53; 449-510, Je '53; 582-92, O '53; 668-73, N '53; and 753-60, De '53.

54:75-83, Ja '54; 164-7, Fe '54; 242-50, Mr '54; 324-34, Ap '54; 419-22, My '54; 500-8, Je '54; 584-91, O '54; 674-6, N '54; and 762-4, De '54.

55:76-84, Ja '55; 162-5, Fe '55; 244-8, Mr '55; 325-30, Ap '55; 411-4, My '55; 495-503, Je '55; 576-87, O '55; 665-70, N '55; and 756-8, De '55.

56:79-84, Ja '56; 159-63, Fe '56; 251-2, Mr '56; 328-37, Ap '56; 410-22, My '56; 502-10, Je '56; 582-92, O '56; 676-9, N '56; and 764-6, De '56.

57:85-7, Ja '57; 162-7, Fe '57; 245-52, Mr '57; 322-31, Ap '57; 405-17, My '57; 500-6, Je '57; 582-7, O '57; 669-72, N '57; and 749-54, De '57.

58:79-82, Ja '58; 160-2, Fe '58; 241-4, Mr '58; 328-32, Ap '58; 415-6, My '58; 498-502, Je '58; 580-3, O '58; 665-7, N '58; and 750-3, De '58.

59:79-81, Ja '59; 164-6, Fe '59; 246-8, Mr '59; 330-2, Ap '59; 419-20, My '59; 507-8, Je '59; 588-90, O '59; 671-3, N '59; and 756-8, De '59.

60:84-6, Ja '60; 167-8, Fe '60; 249-50, Mr '60; 329-32, Ap '60; 415-6, My '60; 502, Je '60; 583-4, O '60; 665-6, N '60; and 746-7, De '60.

Departmental Notes on Teaching

Chemistry Notes: 1:41-3, Mr '01; 5:581-3, O '05; 6:324-6, Ap '06; and 6:411-9, My '06.

Biology Notes: 1:37-8, Mr '01; 5:59, Ja '05; 5:303-4, Ap '05; 5:367-8, My '05; 5: 481-3, Je '05; 5:584, O '05; 6:327-8, Ap '06; 17:838-40, De '17; 18:357-61, Ap '18; 19:323-9, Ap '19; 19:431-7, My '19; and 19: 549-55, Je '19.

Earth Science Notes: 1:38-41, Mr '01; 5: 482, Je '05; and 5:772-4, De '05.

Geometry Notes: 5:369-70, My '05; 6:717, N '06; and 7:434, My '07.

Zoology Notes: 1:36-7, Mr '01; 5:770-1, De '05; 6:63-6, Ja '06; 6:234-5, Mr '06; 6:327, Ap '06; 6:406-9, My '06; 7:335-6, Ap '07; and 8:60-1, Ja '08.

Problem Department

6:77-81, Ja '06; 138-42, Fe '06; 217-20, Mr '06; 319-23, Ap '06; 403-5, My '06; 521-4, Je '06; 623-6, O '06; 692-5, N '06; and 782-6, De '06.

7:60-2, Ja '07; 136-40, Fe '07; 229-32, Mr '07; 314-9, Ap '07; 413-6, My '07; 530-3, Je '07; 607-10, O '07; 688-91, N '07; and 799-83, De '07.

8:52-5, Ja '08; 142-6, Fe '08; 240-4, Mr '08; 325-30, Ap '08; 419-22, My '08; 512-5, Je '08; 596-602, O '08; 705-8, N '08; and 783-6, De '08.

9:67-70, Ja '09; 173-9, Fe '09; 299-303, Mr '09; 388-92, Ap '09; 481-3, My '09; 589-602, Je '09; 682-7, O '09; 799-803, N '09; and 919-23, De '09.

10:68-73, Ja '10; 153-8, Fe '10; 254-8, Mr '10; 327-32, Ap '10; 488-52, My '10; 533-7, Je '10; 625-9, O '10; 737-40, N '10; and 828-32, De '10.

11:73-7, Ja '11; 160-5, Fe '11; 265-70, Mr '11; 362-6, Ap '11; 461-7, My '11; 561-6, Je '11; 656-61, O '11; 757-62, N '11; and 855, De '11.

12:55-7, Ja '12; 150-6, Fe '12; 232-5, Mr '12; 336-40, Ap '12; 423-6, My '12; 520-4, Je '12; 627-32, O '12; 720-3, N '12; and 801-6, De '12.

13:69-74, Ja '13; 157-60, Fe '13; 248-52, Mr '13; 355-9, Ap '13; 435-40, My '13; 525-30, Je '13; 611-5, O '13; 726-30, N '13; and 824-8, De '13.

14:64-7, Ja '14; 158-61, Fe '14; 256-60, Mr '14; 358-62, Ap '14; 436-9, My '14; 522-7, Je '14; 618-21, O '14; 722-7, N '14; and 816-9, De '14.

15:63-7, Ja '15; 158-63, Fe '15; 256-60, Mr '15; 357-63, Ap '15; 439-44, My '15; 524-8, Je '15; 630-9, O '15; 725-30, N '15; and 820-4, De '15.

16:71-7, Ja '16; 157-62, Fe '16; 258-63, Mr '16; 360-6, Ap '16; 452-8, My '16; 545-52, Je '16; 639-42, O '16; 741-5, N '16; and 831-5, De '16.

17:71-5, Ja '17; 171-5, Fe '17; 251-5, Mr '17; 348-54, Ap '17; 444-9, My '17; 546-9, Je '17; 630-5, O '17; 731-3, N '17; and 845-7, De '17.

18:81-6, Ja '18; 168-73, Fe '18; 268-74, Mr '18; 370-6, Ap '18; 461-6, My '18; 554-8, Je '18; 658-61, O '18; 756-9, N '18; and 849-53, De '18.

19:85-8, Ja '19; 186-9, Fe '19; 275-81, Mr '19; 372-6, Ap '19; 468-73, My '19; 563-7, Je '19; 655-8, O '19; 755-8, N '19; and 836-40, De '19.

20:86-90, Ja '20; 174-6, Fe '20; 270-2, Mr '20; 365-8, Ap '20; 465-7, My '20; 554-6, Je '20; 637-40, O '20; 743-5, N '20; and 854-8, De '20.

21:83-6, Ja '21; 173-7, Fe '21; 280-4, Mr '21; 384-92, Ap '21; 483-8, My '21; 582-6, Je '21; 676-9, O '21; 787-90, N '21; and 894-900, De '21.

22:74-7, Ja '22; 176-80, Fe '22; 282-6, Mr '22; 374-7, Ap '22; 482-8, My '22; 582-8, Je '22; 676-80, O '22; 781-6, N '22; and 877-80, De '22.

23:77-80, Ja '23; 173-5, Fe '23; 284-8, Mr '23; 388-92, Ap '23; 492-8, My '23; 584-90, Je '23; 681-3, O '23; 800-4, N '23; and 894-6, De '23.

24:86-92, Ja '24; 193-6, Fe '24; 316-22, Mr '24; 434-42, Ap '24; 526-9, My '24; 635-8, Je '24; 752-5, O '24; 865-7, N '24; and 984-90, De '24.

25:84-8, Ja '25; 189-92, Fe '25; 309-14, Mr '25; 418-26, Ap '25; 528-36, My '25; 646-52, Je '25; 755, 758-60, O '25; 867-70, N '25; and 979-90, De '25.

26:92-6, Ja '26; 189-95, Fe '26; 306-12, Mr '26; 432-40, Ap '26; 537-42, My '26; 651-62, Je '26; 768-72, O '26; 884-90, N '26; and 993-1003, De '26.

27:88-96, Ja '27; 190-4, Fe '27; 307-20, Mr '27; 423-7, Ap '27; 533-40, My '27; 645-50, Je '27; 748-53, O '27; 872-6, N '27; and 984-90, De '27.

28:82-7, Ja '28; 186-90, Fe '28; 306-9, Mr '28; 424-32, Ap '28; 529-34, My '28; 664-70, Je '28; 775-80, O '28; 884-90, N '28; and 995-1000, De '28.

29:90-6, Ja '29; 198-202, Fe '29; 298-302, Mr '29; 418-28, Ap '29; 534-8, My '29; 643-8, Je '29; 757-62, O '29; 864-8, N '29; and 993-7, De '29.

30:80-6, Ja '30; 204-12, Fe '30; 432-8, Ap '30; 572-5, My '30; 680, Je '30; 832-8, O '30; 948-52, N '30; and 1062-7, De '30.

31:80-3, Ja '31; 234-8, Fe '31; 346-50, Mr '31; 465-9, Ap '31; 614-8, My '31; 748-50, Je '31; 882-90, O '31; 997-1001, N '31; and 1124-6, De '31.

32:84-8, Ja '32; 207-14, Fe '32; 319-22, Mr '32; 442-50, Ap '32; 554-9, My '32; 668-71, Je '32; 784-91, O '32; 904-10, N '32; and 1020-4, De '32.

33:96-102, Ja '33; 224-9, Fe '33; 328-33, Mr '33; 447-56, Ap '33; 559-66, My '33; 676-82, Je '33; 779-87, O '33; 898-904, N '33; and 1010-7, De '33.

34:93-8, Ja '34; 212-20, Fe '34; 308-18, Mr '34; 431-6, Ap '34; 534-42, My '34; 664-71, Je '34; 767-73, O '34; 883-9, N '34; and 1000-6, De '34.

35:91-6, Ja '35; 203-9, Fe '35; 314-8, Mr '35; 431-5, Ap '35; 542-7, My '35; 647-53, Je '35; 755-60, O '35; 872-7, N '35; and 983-9, De '35.

36:92-7, Ja '36; 217-21, Fe '36; 321-5, Mr '36; 437-43, Ap '36; 544-8, My '36; 672-7, Je '36; 796-801, O '36; 912-7, N '36; and 1026-32, De '36.

37:109-15, Ja '37; 225-31, Fe '37; 350-6, Mr '37; 479-85, Ap '37; 602-10, My '37; 734-40, Je '37; 859-64, O '37; 987-92, N '37; and 1124-31, De '37.

38:93-9, Ja '38; 218-24, Fe '38; 330-4, Mr '38; 460-5, Ap '38; 582-8, My '38; 708-14, Je '38; 817-22, O '38; 935-41, N '38; and 1034-9, De '38.

39:79-85, Ja '39; 183-9, Fe '39; 281-7, Mr '39; 378-82, Ap '39; 476-80, My '39; 576-82, Je '39; 677-82, O '39; 772-7, N '39; and 877-82, De '39.

40:81-6, Ja '40; 185-91, Fe '40; 284-8, Mr '40; 384-90, Ap '40; 480-7, My '40; 581-9, Je '40; 672-7, O '40; 779-84, N '40; and 884-8, De '40.

41:68-73, Ja '41; 194-200, Fe '41; 289-94, Mr '41; 390-5, Ap '41; 490-6, My '41; 587-92, Je '41; 683-8, O '41; 787-92, N '41; and 885-90, De '41.

42:89-93, Ja '42; 191-5, Fe '42; 290-4, Mr '42; 383-9, Ap '42; 494-8, My '42; 580-3, Je '42; 686-90, O '42; 791-8, N '42; and 897-901, De '42.

43:79-83, Ja '43; 181-6, Fe '43; 281-5, Mr '43; 386-90, Ap '43; 479-83, My '43; 582-8, Je '43; 679-86, O '43; 786-9, N '43; and 877-82, De '43.

44:85-9, Ja '44; 183-7, Fe '44; 280-6, Mr '44; 381-5, Ap '44; 478-83, My '44; 573-7, Je '44; 672-8, O '44; 769-75, N '44; and 866-73, De '44.

45:89-95, Ja '45; 191-4, Fe '45; 282-9, Mr '45; 381-5, Ap '45; 482-7, My '45; 580-3, Je '45; 774-9, N '45; and 874-8, De '45.

46:87-93, Ja '46; 185-90, Fe '46; 284-91, Mr '46; 385-90, Ap '46; 485-9, My '46; 580-7, Je '46; 673-9, O '46; 782-6, N '46; and 883-8, De '46.

47:82-8, Ja '47; 195-9, Fe '47; 285-91, Mr '47; 383-8, Ap '47; 488-93, My '47; 578-83, Je '47; 659-63, O '47; 747-51, N '47; and 835-9, De '47.

48:76-80, Ja '48; 146-51, Fe '48; 241-6, Mr '48; 320-7, Ap '48; 406-11, My '48; 489-95, Je '48; 572-7, O '48; 659-64, N '48; and 744-9, De '48.

49:75-9, Ja '49; 151-4, Fe '49; 241-7, Mr '49; 331-5, Ap '49; 422-7, My '49; 499-505, Je '49; 586-91, O '49; 677-81 N '49; and 764-8, De '49.

50:66-72, Ja '50; 160-5, Fe '50; 238-45, Mr '50; 322-7, Ap '50; 404-9, My '50; 492-8, Je '50; 578-82, O '50; 668-71, N '50; and 757-60, De '50.

51:71-5, Ja '51; 157-62, Fe '51; 239-42, Mr '51; 322-8, Ap '51; 406-10, My '51; 494-9, Je '51; 577-82, O '51; 661-6, N '51; and 756-60, De '51.

52:70-6, Ja '52; 162-7, Fe '52; 238-45, Mr '52; 318-23, Ap '52; 407-12, My '52; 490-6, Je '52; 574-80, O '52; 661-7, N '52; and 752-6, De '52.

53:71-5, Ja '53; 156-60, Fe '53; 245-50, Mr '53; 325-9, Ap '53; 411-5, My '53; 492-7, Je '53; 571-7, O '53; 662-6, N '53; and 748-52, De '53.

54:69-74, Ja '54; 156-63, Fe '54; 235-41, Mr '54; 315-21, Ap '54; 415-6, My '54; 492-8, Je '54; 574-8, O '54; 667-73, N '54; and 755-62, De '54.

55:69-74, Ja '55; 154-51, Fe '55; 236-42, Mr '55; 318-25, Ap '55; 403-8, My '55; 488-92, Je '55; 565-72, O '55; 659-63, N '55; and 749-55, De '55.

56:73-7, Ja '56; 154-7, Fe '56; 244-9, Mr '56; 322-6, Ap '56; 403-9, My '56; 496-501, Je '56; 574-7, O '56; 668-75, N '56; and 757-63, De '56.

57:79-84, Ja '57; 156-61, Fe '57; 238-43, Mr '57; 315-21, Ap '57; 398-403, My '57; 494-98, Je '57; 574-9, O '57; 663-7, N '57; and 742-8, De '57.

58:72-6, Ja '58; 153-8, Fe '58; 234-9, Mr '58; 320-6, Ap '58; 410-2, My '58; 491-5, Je '58; 569-77, O '58; 656-61, N '58; and 745-7, De '58.

59:72-7, Ja '59; 158-62, Fe '59; 239-44, Mr '59; 325-9, Ap '59; 409-17, My '59; 499-504, Je '59; 576-81, O '59; 661-6, N '59; and 746-51, De '59.

60:79-81, Ja '60; 160-3, Fe '60; 243-7, Mr '60; 323-6, Ap '60; 407-12, My '60; 495-9, Je '60; 571-80, O '60; 654-9, N '60; and 737-40, De '60.

Science Questions

7:417-22, My '07; 534-6, Je '07; 611-6, O '07; 693-8, N '07; and 784-6, De '07.

8:58-9, Ja '08; 150, Fe '08; 245-7, Mr '08; 331-2, Ap '08; 425-7, My '08; 516, Je '08; 602-6, O '08; and 788, De '08.

9:70-2, Ja '09; 183-5, Fe '09; 304-6, Mr '09; 394, Ap '09; 490-2, My '09; 608-9, Je '09; and 690-1, O '09.

10:274, Mr '10; 337, Ap '10; 459-60, My '10; 546-7, Je '10; 630-1, O '10; and 832-4, De '10.

11:166-8, Fe '11; 271-2, Mr '11; 376-8, Ap '11; 467-9, My '11; 555-7, Je '11; 652-5, O '11; 750-2, N '11; and 856-7, De '11.

12:58, Ja '12; 156-7, Fe '12; 236-7, Mr '12; 341-3, Ap '12; 427-8, My '12; 524-7, Je '12; 632-4, O '12; 724-6, N '12; and 807-9, De '12.

13:74-7, Ja '13; 253-5, Mr '13; 361-2, Ap '13; 440-2, My '13; 530-2, Je '13; 616-9, O '13; and 815-8, De '13.

14:68-70, Ja '14; 162-3, Fe '14; 261-3, Mr '14; 350-3, Ap '14; 440-4, My '14; 536-8, Je '14; 622-6, O '14; and 727-9, N '14.

15:67-70, Ja '15; 164-7, Fe '15; 347-51, Ap '15; 445-8, My '15; 528-30, Je '15; 628-9, O '15; 730-2, N '15; and 825-7, De '15.

16:77-81, Ja '16; 163-5, Fe '16; 264-7, Mr '16; 367-70, Ap '16; 458-61, My '16; 553-5, Je '16; 642-5, O '16; 745-8, N '16; and 835-9, De '16.

17:77-81, Ja '17; 178-82, Fe '17; 255-8, Mr '17; 354-7, Ap '17; 450-3, My '17; 551-3, Je '17; 639-43, O '17; 733-6, N '17; and 848-50, De '17.

18:86-8, Ja '18; 174-7, Fe '18; 274-7, Mr '18; 376-82, Ap '18; 467-9, My '18; 558-60, Je '18; 655-7, O '18; 753-5, N '18; and 853-5, De '18.

19:90-1, Ja '19; 190-2, Fe '19; 280-1, Mr '19; 377-9, Ap '19; 474-6, My '19; 569-71, Je '19; 659-60, O '19; 752-4, N '19; and 840-3, De '19.

20:92-4, Ja '20; 177-81, Fe '20; 273-5, Mr '20; 368-74, Ap '20; 556-8, Je '20; 646-8, O '20; and 858, De '20.

21:88-92, Ja '21; 177-80, Fe '21; 284-94, Mr '21; 392-400, Ap '21; 488-96, My '21; 588-92, Je '21; 680-3, O '21; and 902-6, De '21.

22:84-6, Ja '22; 180-2, Fe '22; 292-6, Mr '22; 488-92, My '22; 682-4, O '22; 786-8, N '22; and 886-90, De '22.

23:82-4, Ja '23; 176-7, Fe '23; 290-2, Mr '23; 392-6, Ap '23; 500-6, My '23; 594-8, Je '23; 685-8, O '23; 804-6, N '23; and 897-900, De '23.

24:94-6, Ja '24; 210-2, Fe '24; 322-6, Mr '24; 530-4, My '24; 639-41, Je '24; 755-7, O '24; 868-70, N '24; and 990-2, De '24.

25:192-4, Fe '25; 314-20, Mr '25; 428-34, Ap '25; 538-42, My '25; 656-62, Je '25; 760-8, O '25; and 992-8, De '25.

26:96-100, Ja '26; 662-8, Je '26; 774-8, O '26; 890-4, N '26; and 1004-10, De '26.

27:322-4, Mr '27; 542-4, My '27; 652-6, Je '27; 753-6, O '27; 876-80, N '27; and 981-3, De '27.

28:92-8, Ja '28; 191-4, Fe '28; 310-2, Mr '28; 422-4, Ap '28; 536-8, My '28; 682-6, Je '28; 780-2, O '28; 891-4, N '28; and 1006-10, De '28.

29:212-4, Fe '29; 302-5, Mr '29; 428-34, Ap '29; 538-44, My '29; 649-52, Je '29; 770-1, O '29; 874-7, N '29; and 990-3, De '29.

30:96-100, Ja '30; 320-30, Mr '30; 444-8, Ap '30; 575-84, My '30; 689-98, Je '30; 826-32, O '30; 964-8, N '30; and 1096-1100, De '30.

31:92-4, Ja '31; 238-40, Fe '31; 351-4, Mr '31; 473-80, Ap '31; 761-5, Je '31; 877-82, O '31; 1001-3, N '31; and 1126-30, De '31.

32:94-104, Ja '32; 222-6, Fe '32; 428-31, Ap '32; 559-61, My '32; 664-7, Je '32; 792-6, O '32; and 1026-8, De '32.

33:106-11, Ja '33; 230-2, Fe '33; 346-50, Mr '33; 556-8, My '33; 673-6, Je '33; 787-90, O '33; 904-7, N '33; and 1017-21, De '33.

34:98-103, Ja '34; 206-9, Fe '34; 303-6, Mr '34; 426-30, Ap '34; 542-7, My '34; 659-63, Je '34; 774-8, O '34; 890-3, N '34; and 994-9, De '34.

35:97-102, Ja '35; 209-14, Fe '35; 318-24, Mr '35; 425-31, Ap '35; 536-42, My '35; 653-60, Je '35; 760-5, O '35; 877-80, N '35; and 989-94, De '35.

36:98-102, Ja '36; 222-5, Fe '36; 325-9, Mr '36; 443-8, Ap '36; 548-54, My '36; 677-83, Je '36; 801-6, O '36; 917-22, N '36; and 1032-5, De '36.

37:115-9, Ja '37; 231-40, Fe '37; 356-63, Mr '37; 485-9, Ap '37; 610-5, My '37; 740-7, Je '37; 864-8, O '37; 993-8, N '37; and 1131-4, De '37.

38:99-103, Ja '38; 225-9, Fe '38; 334-7, Mr '38; 466-70, Ap '38; 588-95, My '38; 714-20, Je '38; 822-4, O '38; 941-2, N '38; and 1039-44, De '38.

39:85-8, Ja '39; 189-93, Fe '39; 287-91, Mr '39; 383-6, Ap '39; 480-4, My '39; 582-5, Je '39; 682-4, O '39; 778-80, N '39; and 883-6, De '39.

40:87-90, Ja '40; 191-4, Fe '40; 289-92, Mr '40; 391-4, Ap '40; 487-91, My '40; 589-95, Je '40; 677-81, O '40; 785-8, N '40; and 888-91, De '40.

41:73-7, Ja '41; 200-4, Fe '41; 294-9, Mr '41; 396-401, Ap '41; 496-502, My '41; 593-7, Je '41; 688-96, O '41; 792-7, N '41; and 890-5, De '41.

42:93-8, Ja '42; 196-9, Fe '42; 294-8, Mr '42; 390-3, Ap '42; 498-503, My '42; 584-8, Je '42; 690-6, O '42; 798-801, N '42; and 892-6, De '42.

43:83-7, Ja '43; 187-92, Fe '43; 286-90, Mr '43; 390-4, Ap '43; 484-7, My '43; and 588-90, Je '43.

Series of Articles (Miscellaneous)

A Calendar of the Birthdays of Scientists (for each month), by James D. Teller. 41: 768, N '41; 41:884-5, De '41; 42:87-8, Ja '42; 42:187-8, Fe '42; 42:207-8, Mr '42; 42: 312-4, Ap '42; 42:490-2, My '42; and 42:574-6, Je '42.

A Culture Course in Mathematics, by T. M. Blakslee. 5:645-9, N '05; 5:752-5, De '05; 6:58-60, Ja '06; and 6:133-5, Fe '06.

Background and Foreground of General Science, by Wm. T. Skilling. Part I, 29:363-5, Ap '29; Part II, 29:515-8, My '29; Part III, 29:597-600, Je '29; Part IV, 29:734-7, O '29; Part V, 29:825-30, N '29; Part VI, 29:986-9, De '29; Part VII, 30:46-9, Ja '30; Part VIII, 30:171-5, Fe '30; Part IX, 30: 314-9, Mr '30; Part X, 30:391-5, Ap '30; Part XI, 30:498-502, My '30; Part XII, 30: 659-64, Je '30; Part XIII, 30:931-6, N '30; Part XIV, 30:1042-6, De '30; Part XV, 31: 45-9, Ja '31; Part XVI, 31:297-300, Mr '31; and Part XVII, 31:444-7, Ap '31.

Department of Mathematics, Questions and Answers, by Herbert E. Cobb. 17:176, Fe '17; 17:248-50, Mr '17; 17:357-8, Ap '17 17:459-61, My '17; 17:529-30, Je '17; and 17:636-7, O '17.

Department of Metrology:
1:8-10, Mr '01; 90-4, Ap '01; 155-9, My '01; 213-8, Je '01; 264-71, O '01; 319-25, N '01; 377-82, De '01; 445-6, Ja '02; and 492-5, Fe '02.
2:41-3, Mr '02; 111-4, Ap '02; 174-7, My '02; 232-6, O '02; 292-7, N '02; 350-6, De '02; 411-3, Ja '03; 464-7, Fe '03; and 529-34, Mr '03.
3:28-30, Ap '03; 105-7, My '03; 174-7, Je '03; 222-6, O '03; 292-6, N '03; 356-60, De '03; 410-2, Ja '04; 457-60, Fe '04; and 515-22, Mr '04.
4:40-5, Ap '04; 103-5, My '04; and 163-9, Je '04.
5:58-9, Ja '05; 115-7, Fe '05; 202, Mr '05; 284-5, Ap '05; 322-3, 366, My '05; 481, Je '05; 575, O '05; 671, N '05; and 765, De '05.
6:62, Ja '06; 143-4, Fe '06; 221, Mr '06; 315, Ap '06; 351-4, 406, My '06; 526-7, Je '06; and 628, O '06.
7:410-2, My '07; 457-61, Je '07; and 691-2, N '07.
8:248, Mr '08.
9:396, Ap '09; and 492, My '09.
11:169, Fe '11.

Editorials

A Word of Cheer. 1:179-80, Se '01.

Salutatory. (Mathematical Supplement) 1: 1-5, Ap '03.

A Working Basis for Correlation. (Mathematical Supplement) 1:41-6, Je '03.

To All Our Readers. 15:555-6, O '15.

"All Non-Mathematicians Barred." 35:681, O '35.

Community Leaders. 35:793-4, N '35.

A Cause for Rejoicing. 37:9-11, Ja '37.

On to Cincinnati. 37:897-8, N '37.

Improvements in Appearance and Utility. 40:301, Ap '40.

Elementary Experiments in Observational Astronomy, by George W. Myers. 1:190-2, Se '01; 1:262-3, O '01; 1:313-9, N '01; 1:374-6, De '01; 1:437-44, Ja '02; 1:488-91, Fe '02; 2:35-40, Mr '02; 2:107-10, Ap '02; 2:169-73, My '02; 2:223-8, O '02; and 2:288-91, N '02.

From the Scrapbook of a Teacher of Science, by Duane Roller. 27:720, O '27; 27:826, N '27; 27:928, De '27; 28:171, Fe '28; 28:271, Mr '28; 28:388, Ap '28; 28:462, My '28; 28:939, De '28; 29:20, Ja '29; 29:189, Fe '29; 29:501, My '29; and 29:589, Je '29.

Highlights of the Skies (for each month), by James L. Russell and David W. Russell. 39:769-72, N '39; 39:874-7, De '39; 40:51-3, Ja '40; 40:169-72, Fe '40; 40:273-5, Mr '40; 40:381-3, Ap '40; 40:476-80, My '40; and 40:574-80, Je '40.

Inside the Atom, by Barbara R. Balzer. 50:609-13, N '50; 50:708-12, De '50; 51:59-60, Ja '51; 51:125-30, Fe '51; 51:226-7, Mr '51; 51:319-22, Ap '51; 51:365-9, My '51; and 51:479-84, Je '51.

Live Chemistry. 14:169-71, Fe '14; 14:446-8, My '14; 14:582-31, Je '14; 14:629-30, O '14; 14:811-4, N '14; 15:70-2, Ja '15; 15:260-2, Mr '15; 15:352-4, Ap '15; 15:403-8, My '15; 15:617-22, O '15; 16:447-8, My '16; and 16:846-7, De '16.

Magnetism, by S. R. Williams. 52:723-6, De '52; 53:460-77, Je '53; 54:267-88, Ap '54; 54:439-52, Je '54; 54:719-42, De '54; 55:615-34, N '55; and 56:54-69, Je '56.

Motion Picture Reviews. 39:197, Fe '39; 39:297, Mr '39; 39:397-8, Ap '39; 39:493-5, My '39; and 39:595, Je '39.

Notes from a Mathematics Classroom, by Joseph A. Nyberg:
42:174-7, Fe '42; 239-42, Mr '42; 365-8, Ap '42; 463-6, My '42; 565-8, Je '42; 661-4, O '42; 762-5, N '42; and 865-8, De '42.
43:53-6, Ja '43; 158-61, Fe '43; 264-7, Mr '43; 352-5, Ap '43; 455-8, My '43; 559-62, Je '43; 648-51, O '43; 751-4, N '43; and 843-7, De '43.
44:79-82, Ja '44; 155-8, Fe '44; 270-3, Mr '44; 319-22, Ap '44; 469-72, My '44; 569-72, Je '44; 668-71, O '44; and 854-7, De '44.
45:83-7, Ja '45; 173-6, Fe '45; 372-5, Ap '45; 443-7, My '45; 643-6, O '45; and 770-3, N '45.
46:82-5, Ja '46; 168-71, Fe '46; 277-80, Mr '46; 372-5, Ap '46; 565-8, Je '46; and 879-82, De '46.
47:76-80, Ja '47; 191-4, Fe '47; 271-5, Mr '47; 484-7, My '47; and 649-52, O '47.
48:54-7, Ja '48; 135-8, Fe '48; 308-11, Ap '48; and 479-82, Je '48.

On Science Teaching, by C. R. Mann. 5:546-51, O '05; 5:617-22, N '05; 5:685-90, De '05; 6:29-35, Ja '06; 6:194-7, Mr '06; and 6:303-9, Ap '06.

Real Applied Problems in Algebra and Geometry, by James F. Millis. 9:307-11, Mr '09; 9:398-401, Ap '09; 9:484-8, My '09; 9:610-3, Je '09; 9:692-5, O '09; 9:788-98, N '09; 9:924-8, De '09; 10:74-7, Ja '10; 10:159-62, Fe '10; 10:259-62, Mr '10; 10:333-6, Ap '10; 10:453-6, My '10; 10:538-40, Je '10; 10:632-4, O '10; 10:673-81, N '10; 11:558-60, Je '11; and 11:662-3, O '11.

Research in Biology, by Homer C. Simpson. 18:152-6, Fe '18; 18:439-46, Ap '18; and 19:150-7, Fe '19.

Research in Chemistry, by B. S. Hopkins. 18:57-66, Ja '18; 18:145-51, Fe '18; 18:588-92, Je '18; 18:685-98, N '18; and 20:673-80, N '20.

Research in Physics. 17:58, Ja '17; 17:154-9, Fe '17; 17:259-62, Mr '17; 17:359-63, Ap '17; 17:454-58, My '17; 17:554-7, Je '17; 17:726-7, N '17; 17:843-7, De '17; 18:89-92, Ja '18; 18:272-4, Mr '18; 18:470-1, My '18; 19:20-3, Ja '19; 19:272-4, Mr '19; 19:438-41, My '19; 20:337-40, Ap '20; 20:681-91, N '20; 21:511-24, Je '21; 22:56-63, Ja '22; 22:635-6, O '22; and 26:495-6, My '26.

Scientific Study of Education in Biology - Bibliography, by W. L. Eikenberry. 11:175-7, Fe '11; 11:275, Mr '11; 11:380-1, Ap '11; and 11:647, O '11.

Some War-Time Developments in Chemistry, by B. S. Hopkins. 46:404-11, My '46; 46:533-9, Je '46; 46:617-27, O '46; 46:708-18, N '46; and 46:825-35, De '46.

The Plight of High School Physics, by H. Emmett Brown. 39:840-5, De '39; 40:156-60, Fe '40; 40:368-76, Ap '40; 40:457-62, My '40; 40:815-23, De '40; 41:36-42, Ja '41; and 41:171-7, Fe '41.

The Quiz Section, by Julius Sumner Miller: 45:579, Je '45; 659, O '45; and 869, De '45. 46:42, Ja '46; 130, Fe '46; 239, Mr '46; 311, Ap '46; 432, My '46; 499, Je '46; 598, O '46; 748, N '46; and 890, De '46. 47:154, Fe '47; 250, Mr '47; 374, Ap '47; 714, N '47; and 784, De '47. 48:2, Ja '48; 134, Fe '48; 246, Mr '48; 258, Ap '48; 468, Je '48; and 685, De '48. 49:47, Ja '49; 133, Fe '49; 190, Mr '49; 321, Ap '49; 373, My '49; 476, Je '49; 522, O '49; 619, N '49; and 702, De '49. 50:3, Ja '50; and 422, My '50.

Central Association of Science and Mathematics Teachers

(entries arranged chronologically)

General Articles Concerning CASMT

Resolutions Adopted by the Central Association of Science and Mathematics Teachers, December 2, 1905. 6:71-5, Ja '06.

Brief General History of the Central Association of Science and Mathematics Teachers, by Charles H. Smith. 13:348-9, Ap '13.

Address of Welcome to the New Sections of Home Economics and Agriculture in the Central Association of Science and Mathematics Teachers, by Otis W. Caldwell. 15: 342-3, Ap '15.

Central Association of Science and Mathematics Teachers. 19:664-5, O '19.

Central Association of Science and Mathematics Teachers, by W. F. Roecker, President. 28:88, Ja '28.

Central Association of Science and Mathematics Teachers - The Monthly Message, by W. F. Roecker, President. 28:185, Fe '28; 28:314, Mr '28; 28:352, Ap '28; 28:528, My '28; 28:574, Je '28; 28:701-3, O '28; and 28:828, N '28.

Address of Welcome to the Central Association of Science and Mathematics Teachers, by Elliot R. Downing. 29:121-2, Fe '29.

The First Quarter-Century of the Mathematics Section of the Central Association, by Edwin W. Schreiber. 29:366-74, Ap '29.

A Letter to the Members of the Central Association of Science and Mathematics Teachers, by Glen W. Warner, President. 31:183, Fe '31; and 31:799-800, O '31.

The Central Association of Science and Mathematics Teachers. 31:650, Je '31.

A Thought for Members of the Central Association. 34:121-35, Fe '34.

A Post-Card from the President, by O. D. Frank. 36:9, Ja '36; 36:123, Fe '36; 36: 705-7, O '36; and 36:833-5, N '36.

The Indianapolis Members Take a Holiday, by Walter H. Carnahan. 36:806-8, O '36.

Invitation to Indiana, by the Indiana Members. 37:387, Ap '37.

Spring Rally of Science and Mathematics Teachers, by Franklin T. Jones. 37:519, My '37.

Association News, by Harold H. Metcalf. 37:642, Je '37.

What Are Some of the Benefits of Membership? 38:687, Je '38.

Some Values Derived from the Central Association of Science and Mathematics Teachers. 38:756, O '38.

The Central Association of Science and Mathematics Teachers Can Help You. 38: 729-31, O '38.

Four New Committees to Serve You, by Marie S. Wilcox. 39:301-2, Ap '39.

Of Concern to Members of the Central Association. 39:602-3, O '39.

Committees for the Improvement of Physics Education. 40:225, Mr '40.

A C-H-A-L-L-E-N-G-E. 44:295, Ap '44.

Looking to the Future. 44:858, De '44.

A Few Words from Me to You, by Walter H. Carnahan. 45:99-100, Fe '45.

Central Association Has a Job for All, by Walter H. Carnahan. 45:199-200, Mr '45.

If May Were November, by Walter H. Carnahan. 45:297-8, Ap '45.

Central Association of Science and Mathematics Teachers. 46:297-8, Ap '46.

A Post Card from the President, by G. E. Hawkins. 47:397-8, My '47.

A New Year; A New Official Family; The Old Ideals, by J. E. Potzger. 48:85, Fe '48.

Looking Forward, by J. E. Potzger. 48: 594, N '48.

A Half Century of Teaching of Science and Mathematics. 49:366, My '49; 49:690, De '49; and 50:1-2, Ja '50.

From Blueprints to Action. 49:365-6, My '49.

Coordinating Science and Mathematics. 49: 437, Je '49.

Research Activities of the Central Association of Science and Mathematics Teachers. 49:602, O '49.

Meet the Authors of Our Anniversary Book. 49:601-2, N '49; and 50:85-6, Fe '50.

Our Anniversary Book Again. 50:185-6, Mr '50.

Central Association of Science and Mathematics Teachers. 50:255, Ap '50.

Fifty Years of Teaching Science and Mathematics. 50:352, My '50.

Our Anniversary Book Advertised All Over the World. 50:424, Je '50.

Promotion of Mathematics and Science, by Allen F. Meyer. 50:594, O '50.

Fifty Years of CASMT, by Edward Bos. 51: 401-5, My '51.

Our Second Wind. 51:595-6, N '51.

A Word from Your President, by Philip Peak. 52:171-2, Mr '52.

A Message from the President of CASMT, by Edward Bos. 57:169-70, Mr '57.

A Dedication: Dr. and Mrs. Glen W. Warner. 57:507, O '57.

Annual Election. 57:540, O '57.

CASMT Progress Report, by Louis Panush. 58:316-9, Ap '58.

CASMT Progress Report, by Clyde T. McCormick. 59:498-9, Je '59.

Announcements of Annual Conventions of CASMT

5:591, O '05; and 677-81, N '05.
6:72-5, Ja '06; 640, O '06; 722, N '06; and 801-2, De '06.
7:706-7, N '07.
8:68-76, Ja '08; 711-2, N '08; and 794-6, De '08.
13:734-5, N '13; and 822-3, De '13.
14:632, O '14; and 733-4, N '14.
15:734, N '15; and 835-6, De '15.
16:166, Fe '16.
17:160-1, Fe '17; and 842, De '17.
19:751, 754, N '19.
21:785, N '21.
22:777-8, N '22.
23:797, N '23.
24:877, N '24.
25:756-7, O '25; and 876-7, De '25.
26:882-3, N '26.
27:869-71, N '27.
29:692, Je '29; and 904-8, N '29.
30:957-9, N '30.
31:1022-4, N '31.
32:636, Je '32; 706-10, O '32; and 915-9, N '32.
33:9-11, Ja '33; 250-1, Mr '33; and 896-7, 918, N '33.
34:690-1, O '34; and 880-3, N '34.
35:569-70, Je '35; 682-4, O '35; and 866-72, N '35.
36:907-12, N '36.
37:703, Je '37.
38:5, Ja '38; 605-6, Je '38; and 841, 927-34, N '38.
39:1, Ja '39; 399, My '39; 497-9, Je '39; 599-603, O '39; and 697-701, 781, N '39.
40:603-4, O '40; and 701-2, 795-800, N '40.
41:609-10, O '41; and 775-8, N '41.
42:609-10, O '42; and 709-10, N '42.
43:602-3, O '43; and 783-5, N '43.
45:181-2, Fe '45; 593, O '45; and 687-8, N '45.
46:395-7, My '46; 593-5, 669-71, O '46; and 778-81, N '46.
47:602-3, O '47; and 677-8, N '47.
48:364, My '48; 419, Je '48; 505-6, 577-8, O '48; and 589-91, N '48.
49:89-90, 155-61, Fe '49; and 517-8, O '49.
50:341, My '50; 423-4, Je '50; and 664-7, N '50.
51:513-4, O '51; and 657-60, N '51.
52:509-10, O '52; and 593-4, N '52.
53:511-2, O '53; and 632-4, N '53.
54:520, O '54; and 593, N '54.
55:508, O '55.
57:383-6, My '57; 509-11, O '57; and 589-92, N '57.
58:490, Je '58; 567-9, O '58; and 654-6, N '58.
59:430, Je '59; and 660, N '59.
60:567-70, O '60; and 653, N '60.

Minutes and/or Reports of Annual Conventions of the CASMT

3:113-4, My '03; and 418-21, Ja '04.
5:61-3, Ja '05.
7:63-72, Ja '07.
9:87-94, Ja '09.
11:80-7, Ja '11.
12:66-8, Ja '12.
13:165-78, Fe '13.
14:172-6, Fe '14.
15:81-3, Ja '15.
18:180-2, Fe '18.
19:197-9, Mr '19; and 204-7, Fe '19.
20:232-4, Mr '20.
21:255, Mr '21.
22:190-6, Fe '22.
23:178-80, 190-4, Fe '23.
24:197-200, Fe '24.
25:182-3, Fe '25.
26:196-9, Fe '26.

27:197-204, Fe '27.
28:204-6, 216-7, 220, Fe '28.
29:310-2, Mr '29.
30:330-6, Mr '30.
31:84-5, Ja '31.
32:189-200, Fe '32.
33:171-5, Fe '33.
34:123-35, Fe '34.
35:302-13, Mr '35.
36:202-16, Fe '36.
37:97-109, Ja '37.
38:81-93, Ja '38.
39:62-79, Ja '39.
40:54-80, Ja '40.
41:78-92, Ja '41.
42:75-86, Ja '42.
43:168-81, Fe '43.
44:99-100, Fe '44; and 169, Fe '44.
46:175-7, Fe '46.
47:276-84, Mr '47.
48:151-60, Fe '48.
49:155-66, Fe '49.
50:151-60, Fe '50.
51:148-57, Fe '51.
52:154-62, Fe '52.
53:237-43, Mr '53.
54:150-1, Mr '54.
55:233-5, Mr '55.
56:164-7, Fe '56.
57:152-5, Fe '57.
58:229-33, Mr '58.
59:235-8, Mr '59.
60:240-3, Mr '60.

Minutes of CASMT Board of Directors' Meetings

18:207-8, Mr '18.
33:178-86, Fe '33.
44:178-83, Fe '44.
45:177-81, Fe '45; and 681-5, O '45.
46:172-84, 177-8, Fe '46.
47:276-8, 280-4, Mr '47.
48:151-3, 154-5, Fe '48.
49:155-61, Fe '49.
50:151-3, 155-6, Fe '50.
51:148-50, 152-3, Fe '51.
52:154-7, 158-9, Fe '52.
53:237-40, 241-3, Mr '53.
54:150, Fe '54.
55:233, 235, Mr '55.
56:164-5, 166-7, Fe '56.
57:152-4, 155, Fe '57.
58:229-31, 232-3, Mr '58.
59:235-6, 237-8, Mr '59.
60:240-2, 242-3, Mr '60.

Reports of CASMT Convention Section Meetings

Agriculture Section

14:460, My '14.
15:170, Fe '15.
16:169-70, Fe '16.
17:163, Fe '17.

Biology Section

3:244-50, O '03.
3:527-35, Mr '04.
5:50-2, Ja '05.
5:117-31, Fe '05.
6:152-5, Fe '06.
7:156-9, Fe '07.
8:74-6, Ja '08.
9:92-4, Ja '09.
11:81-2, Ja '11.
12:240-5, Mr '12.
13:168-70, Fe '13; and 350-2, Ap '13.
14:176-9, Fe '14.
15:170-2, Fe '15.
16:170-2, Fe '16.
17:163-5, Fe '17.
18:183-5, Fe '18; and 236-41, Mr '18.
20:238-40, Mr '20.
23:186-8, Fe '23.
27:204-6, Fe '27.
28:206-8, Fe '28.
31:86, Ja '31.
32:194, Fe '32.
33:173, Fe '33.
34:127-8, Fe '34.
35:303, Mr '35.
36:204-6, Fe '36.
37:99-100, Ja '37.
38:82-3, Ja '38.
39:63-4, Ja '39.
40:61-2, Ja '40.
41:81-2, Ja '41.
42:77-8, Ja '42.
43:170-1, Fe '43.
44:170-1, Fe '44.
45:182-4, Fe '45.
46:178-9, Fe '46.
48:156-7, Fe '48.
49:161-3, Fe '49.
50:157, Fe '50.
51:242-3, Mr '51.
52:159, Fe '52.
53:243-4, Mr '53.

Chemistry Section

5:120-5, Fe '05.
7:65-7, Ja '07.
10:267-73, Mr '10.
11:173-4, Fe '11.
12:69, Ja '12.
13:170-2, Fe '13; and 731, N '13.
14:179-80, Fe '14.
15:172-3, Fe '15.
16:172-3, Fe '16.
17:263-6, Mr '17.
18:185-8, Fe '18.
19:362-71, Ap '19.
20:240-5, Fe '20.
21:906-10, De '21.
22:196-8, Fe '22.
24:200-1, Fe '24.
25:186-7, Fe '25.
28:208, Fe '28.
29:314-6, Mr '29.
31:86-7, Ja '31.
32:195, Fe '32.
33:173-5, Fe '33.
34:128, Fe '34.
35:303-4, Mr '35.
36:206-7, Fe '36.
37:100, Ja '37.
38:83-4, Ja '38.
39:65, Ja '39.

40:62-4, Ja '40.
41:82-3, Ja '41.
42:78-9, Ja '42.
43:171-3, Fe '43.
44:171-2, Fe '44.
45:184, Fe '45.
46:179, Fe '46.
48:156-7, Fe '48.
49:163, Fe '49.
50:157-8, Fe '50.
52:160, Fe '52.

Conservation Section
44:175-6, Fe '44.
45:190, Fe '45.

Earth Science Section
3:465-82, Fe '04.
5:127-31, Fe '05.
6:157, Fe '06.
7:67-9, Ja '07.
8:166, Fe '08.
9:195-6, Fe '09.
11:172-3, Fe '11.
12:238-45, Mr '12.
13:172-4, Fe '13.
14:180-2, Fe '14.
15:83-4, Ja '15.
17:165-70, Fe '17.
18:281-2, 239-41, Mr '18.
20:256-7, Mr '20.

Elementary Mathematics Section
43:173, Fe '43.
44:172-3, Fe '44.
46:179-80, Fe '46.
48:159-60, Fe '48.
49:163-4, Fe '49.
50:158-9, Fe '50.
51:156-7, Fe '51.
52:160, Fe '52.

Elementary School Group
43:179-80, Fe '43.
45:188-9, Fe '45.
50:296, Ap '50.

Elementary Science Section
33:178, Fe '33.
34:129, Fe '34.
35:304-5, Mr '35.
36:207-8, Fe '36.
37:100-1, Ja '37.
38:84-6, Ja '38.
39:65-6, Ja '39.
40:64, Ja '40.
41:83-4, 90-1, Ja '41; and 269-79, Mr '41.
42:79-80, Ja '42.
43:173-4, Fe '43.
44:173-4, Fe '44.
45:184-5, Fe '45.
46:180, Fe '46.
48:157-8, Fe '48.
50:476, Je '50.
51:422-3, My '51.
52:160-1, Fe '52.

General Science Section
18:255-8, Mr '18.
20:257-61, Mr '20.
22:198-200, Fe '22.
23:180, Fe '23.
26:199-200, Fe '26.
28:210, Fe '28.
29:318, Mr '29.
32:194, Fe '32.
33:175, Fe '33.
34:129-30, Fe '34.
35:305-6, Mr '35.
36:208-9, Fe '36.
37:102, Ja '37.
38:86, Ja '38.
39:66-7, Ja '39.
40:64-7, Ja '40.
41:84-7, Ja '41.
42:80-8, Ja '42.
43:174-5, Fe '43.
46:181, Fe '46.
49:164-5, Fe '49.
51:243, Mr '51.

Geography Section
20:251-69, Mr '20.
22:200-2, Fe '22.
23:180-2, Fe '23.
24:201-2, Fe '24.
27:206-8, Fe '27.
28:212, Fe '28.
29:318-20, Mr '29.
31:87-8, Ja '31.
32:194-5, Fe '32.
33:175-6, Fe '33.
35:306-7, Mr '35.
36:209-10, Fe '36.
37:102-3, Ja '37.
38:86, Ja '38.
39:67-8, Ja '39.
40:67-8, Ja '40.
41:87-8, Ja '41.
43:175-6, Fe '43.
44:174, Fe '44.
45:185, Fe '45.
46:181, Fe '46.
48:158-9, Fe '48.
49:164, Fe '49.
50:237, Mr '50.
51:243-4, Mr '51.

Home Economics Section
15:178-80, Fe '15.
16:173-4, Fe '16.
19:369-71, Ap '19.
20:261-4, Mr '20.

Junior College Group
40:72-3, Ja '40.
43:180, Fe '43.
44:177-8, Fe '44.
45:189-90, Fe '45.

Junior High School Group
41:91-2, Ja '41.
43:180-1, Fe '43.
44:176-7, Fe '44.
45:189, Fe '45.

Mathematics Section

5:125-6, Fe '05.
6:144-57, Fe '06.
7:70-2, Ja '07.
8:70-4, Ja '08.
9:89-92, Ja '09.
11:82-5, Ja '11.
12:69-73, Ja '12.
13:174-8, Fe '13.
14:268-71, Mr '14.
15:173-5, Fe '15.
16:174-6, Fe '16.
17:267-8, Mr '17.
18:282-3, Mr '18.
19:265-7, Mr '19.
20:264-6, Mr '20.
23:182-6, Fe '23.
24:202-6, Fe '24.
25:183-5, Fe '25.
26:200-4, Fe '26.
27:208-10, Fe '27.
28:212-6, Fe '28.
29:320-2, Mr '29.
31:88-90, Ja '31.
32:195-7, Fe '32.
33:176-7, Fe '33.
34:130, Fe '34.
35:307-8, Mr '35.
36:210-1, Fe '36.
37:103-4, Ja '37.
38:87-8, Ja '38.
39:68-9, Ja '39.
40:68-9, Ja '40.
41:88-9, Ja '41.
42:81-2, Ja '42.
43:176-8, Fe '43.
44:174-5, Fe '44.
45:185-7, Fe '45.
46:182-3, Fe '46.
48:159, Fe '48.
49:165-6, Fe '49.
50:159-60, Fe '50.
51:154-5, Fe '51.
52:161, Fe '52.

Physics Section

2:242, O '02; and 473-86, Fe '03.
3:184-6, Je '03; and 463-82, Fe '04.
5:63-6, Ja '05; and 119, Fe '05.
6:149-52, Fe '06.
8:256-8, Mr '08.
9:191-7, Fe '09.
10:269-73, Mr '10.
11:85-7, Ja '11.
12:73-5, Ja '12.
13:258-9, Mr '13.
14:182-4, Fe '14.
15:175-8, Fe '15.
16:176-8, Fe '16.
17:268-70, Mr '17.
18:188, Fe '18.
18:267-8, Mr '18.
20:266-9, Mr '20.
23:188-90, Fe '23.
24:206, Fe '24.
26:204-6, Fe '26.
27:210-2, Fe '27.
28:216, Fe '28.
29:322-4, Mr '29.
31:90, Ja '31.
32:197, Fe '32.
33:177, Fe '33.
34:131, Fe '34.
35:308-10, Mr '35.
36:211-2, Fe '36.
37:104, Ja '37.
38:88-9, Ja '38.
39:69-70, Ja '39.
40:69-71, Ja '40.
41:89-90, Ja '41.
42:82-3, Ja '42.
43:178-9, Fe '43.
45:187-8, Fe '45.
46:183-4, Fe '46.
48:516, O '48.
49:198, Mr '49.
50:237-8, Fe '50.
51:155-6, Fe '51.
52:161-2, Fe '52.

Senior High School Group

43:181, Fe '43.
53:244-5, Mr '53.

CASMT Convention Registration Lists

41:304-7, Mr '41.
42:400-6, Ap '42.

List of CASMT Officers

20:184, Fe '20.
35:424-5, Ap '35.
44:472-7, My '44.

CASMT Membership Reports

10:83, Ja '10.
12:69, Ja '12.
38:687, Je '38.

CASMT Treasurer's Reports

8:148-9, Fe '08.
10:82-3, Ja '10.
12:68, Ja '12.
13:168, Fe '13.
17:161-2, Fe '17.
19:208, Mr '19.
21:257-8, Mr '21.
27:200-2, Fe '27.
28:220, Fe '28.
29:312-4, Mr '29.
31:85, Ja '31.
47:281, Mr '47.

Reports of Regional CASMT Meetings

Cleveland, 4:109-11, My '04.
Northeastern Ohio, 5:308, Ap '05; Chicago, 5:588, O '05; and Chicago, 5:776, De '05.
Northwestern Ohio, 11:569, Je '11.
Toledo, 12:65-75, Ja '12.

CASMT Committee Reports

Report of the Committee on the So-Called Temperance Physiology Made at the Annual Meeting of the Central Association of Science and Mathematics Teachers, Nov. 30, 1904. 5:203-7, Mr '05.

The Central Association of Science and Mathematics Teachers and Its Local Centers, by W. A. Fiske. 5:500-2, Je '05.

Report of Committee on Course of Study in Zoology and Botany. 5:736-42, De '05.

Mathematical Announcements. 7:321, Ap '07.

Preliminary Report of the Committee of the Central Association on Algebra in the Secondary Schools. 7:674-85, N '07.

Additions and Alterations to be Made in the Preliminary Report of Committee on Geometry Presented to Mathematics Section, Central Association of Science and Mathematics Teachers, December 20, 1906. 8: 156-7, Fe '08.

Preliminary Report of the Committee of the Mathematics Section of the Central Association on the Unifying of Secondary Mathematics. 8:635-44, O '08.

Geometry Report, Central Association of Science and Mathematics Teachers. 9:73-8, Ja '09.

The Central Association of Science and Mathematics Teachers Algebra Report of 1907, by Mabel Sykes. 9:114-20, Fe '09.

Report of the Committee on Fundamentals of the Central Association of Science and Mathematics Teachers, by T. W. Galloway (Chrm.). 10:801-13, De '10.

The Place of Plant and Animal Studies in a Science Program for Secondary Schools (topic for discussion at DeMoines Meeting of the Central Association). 13:740, N '13.

Preliminary Report of the Committee on a Unified High School Science Course, by Otis W. Caldwell. 14:166-8, Fe '14.

Report of Committee on State of Physics Teaching in Indiana High Schools, by James E. Weyant, Edwin Morrison, and Earl R. Glenn. 14:803-6, De '14.

Central Association of Science and Mathematics Teachers Report of the Committee on a Four-Year High School Science Course, by Otis W. Caldwell. 16:393-9, My '16.

Report of Special Committee on Professional Training. 29:208-12, Fe '29.

Annual Report of the Conservation Committee. 40:73-80, Ja '40.

The 1949-50 Program of the Mathematics Trends Committee. 50:453-4, Je '50.

Proposed Changes in By-Laws or Constitution of CASMT

Amendments to the Constitution of the Central Association of Science and Mathematics Teachers. 8:711-2, N '08.

Proposed Amendments to the Constitution of the Central Association of Science and Mathematics Teachers. 12:636-7, O '12.

Proposed Changes in the Constitution of the Central Association. 15:734-5, N '15.

Proposed Amendment to the Constitution of the Central Association of Science and Mathematics Teachers. 18:752, N '18.

Proposed Amendment to the Constitution of the Central Association. 19:749-54, N '19.

Proposed Amendment to the By-Laws of C.A. S. and M.T. 32:710, O '32.

Recommended Revision of the By-Laws. 49: 582-6, O '49.

Suggested Revisions of the By-Laws. 50: 577-8, O '50; and 50:678-9, N '50.

Proposed Amendments to the By-Laws of the Central Association of Science and Mathematics Teachers. 55:563-4, O '55; and 55:671-2, N '55.

Suggested Rewording of Proposed Changes in Article III of the Constitution of CASMT. 57:236-7, Mr '57; and 57:295-6, Ap '57.

Proposed Plans for Nomination and Election of Officers. 57:571-4, O '57; and 57:660-2, N '57.

Proposed Amendment. 59:206, Mr '59; and 59:303, Ap '59.

Proposed Changes in CASMT By-Laws. 60: 652-3, N '60.

Eastern Association of Physics Teachers Reports of Meetings

1:103-4, Ap '01; 230-1, Se '01; and 387-9, De '01.

2:53-4, Mr '02; and 425-8, Ja '03.

3:118-23, My '03; and 301-4, N '03.

4:106-9, My '04; and 176-7, Je '04.

5:373-80, My '05; and 589, O '05.

7:618-20, O '07.

8:434, My '08.

9:197-8, Fe '09; 408-9, Ap '09; and 703-4, O '09.

10:169, Fe '10; and 646-7, O '10.

11:571, Je '11; and 664, O '11.

12:161, Fe '12; 537-8, Je '12; and 635, O '12.

13:533-5, Je '13.

15:356, Ap '15; 735-6, N '15; and 835, De '15.

16:268-9, Mr '16.

21:192, Fe '21.

29:886, N '29.

30:57-78, Ja '30; 197, Fe '30; 529-71, My '30; and 806-25, O '30.

31:189-98, Fe '31; 586-603, My '31; and 858-72, O '31.

32:201-6, Fe '32; 338, Mr '32; 531-54, My '32; and 773-84, O '32.

33:198-213, Fe '33; 432-47, Ap '33; and 653-71, My '33.

34:193-206, Fe '34; 643-59, Je '34; and 756-67, O '34.

35:192-203, Fe '35; 634-47, Je '35; and 740-55, O '35.

36:303-20, Mr '36; 655-72, Je '36; and 778-96, O '36.

37:334-49, Mr '37; 708-33, Je '37; and 848-58, O '37.

38:194-218, Fe '38; 688-708, Je '38; and 802-17, O '38.

39:165-83, Fe '39; 455-76, My '39; and 662-77, O '39.

40:276-84, Mr '40; 561-74, Je '40; and 666-71, O '40.

41:181-94, Fe '41; 581-7, Je '41; and 677-82, O '41.

42:268-85, Mr '42; and 680-5, O '42.

43:60-8, Ja '43; 358-72, 372-85, Ap '43; 572-80, Je '43; and 667-78, O '43.

44:159-68, Fe '44; and 665-7, O '44.

45:660-71, O '45; and 376-80, De '45.

46:376-85, Ap '46; 569-79, Je '46; and 638-68, O '46.

47:54-76, Ja '47; 375-81, Ap '47; and 572-7, Je '47.

48:401-6, My '48.

49:322-7, Ap '49; 493-9, Je '49; and 658-66, 667-72, N '49.

50:485-91, Je '50.

51:67-70, 70-1, Ja '51.

52:314-8, Ap '52.

53:323-5, Ap '53; and 399-410, My '53.

National Science Foundation

Foundation Announces 108 Summer Institutes for High-School and College Teachers of Science and Mathematics. 58:244-9, Mr '58.

National Science Foundation Announces 379 Summer Institutes for High School and College Teachers of Science, Mathematics and Engineering. 60:150-9, Fe '60.

Science Legislation - National Science Foundation Bills, by Eleanor Johnson (Comp.). 48:143-6, Fe '48; 48:233-40, Mr '48; and 48:312-8, Ap '48.

Miscellaneous Professional Organizations—Reports of Activities

American Association for the Advancement of Science (including the Cooperative Committee on the Teaching of Science and Mathematics): 28:640-64, Je '28; 33:1028-30, De '33; 42:190-1, Fe '42; 42:896, De '42; 49:753, De '49; and 53:229, Mr '53.

American Chemical Society: 23:777-85, N '23.

American Federation of Teachers of the Mathematical and the Natural Sciences: 7:242-3, Mr '07; 8:78, Ja '08; 8:335-7, Ap '08; 8:796, De '08; 9:312-3, Mr '09; 10:343-63, Ap '10; 11:367-75, Ap '11; 11:470-2, My '11; 12:250-2, Mr '12; and 13:626-7, O '13.

American Institute of School Science Clubs: 38:113, Fe '38.

American Institutes of Physics: 42:606-8, Je '42.

American Mathematical Society: 5:384, My '05; 5:508, Je '05; 6:244, Mr '06; 6:329, Ap '06; 6:532-3, Je '06; and 6:640, O '06.

American Nature-Study Society: 8:255, Mr '08; and 11:385-6, Ap '11.

American Science Teachers Association: 38: 689, Je '38; 40:875, De '40; and 41:831, De '41.

American Society of Teachers of Mathematics and the Natural Sciences: 6:68-71, Ja '06.

Association of Colleges and Secondary Schools in the Southern States: 13:730, N '13.

Association of Kentucky Colleges: 9:621, Je '09; 10:168, Fe '10; and 10:646, O '10.

Association of Mathematical Teachers in New England: 5:504-5, Je '05; 6:148-9, Fe '06; 7:152-3, Fe '07; 9:199, Fe '09; 11:170-1, Fe '11; 11:570-1, Je '11; 12:247-8, Mr '12; 12:434, My '12; 51:233, Mr '51; and 54:298, Ap '54.

Association of Mathematics Teachers of New Jersey: 15:737, N '15.

Association of Ohio Teachers of Mathematics and Science: 5:218-9, Mr '05; 5:380-2, My '05; 6:243-4, Mr '06; 7:241-2, Mr '07; 8: 160-1, Fe '08; 9:189-90, Fe '09; 9:619, Je '09; 10:268-9, Mr '10; 11:383-5, Ap '11; 12: 535-7, Je '12; and 14:533-6, Je '14.

Association of Teachers of Mathematics in Washington: 6:237, Mr '06.

Association of Teachers of Mathematics of the Middle States and New England: 6:147, Fe '06; 7:153-6, Fe '07; 7:337-8, Ap '07; 7:433-4, My '07; 8:162-3, Fe '08; 8:529-30, Je '08; 9:188-9, Fe '09; 10:88, Ja '10; 10: 168, Fe '10; 11:79-80, Ja '11; 11:276-7, Mr '11; 11:569, Je '11; 22:783-4, N '22; 22: 875, De '22; and 27:183-9, Fe '27.

Association of Teachers of Secondary Mathematics of North Carolina: 18:382, Ap '18.

Association of the Science Teachers of Central Illinois: 2:55, Mr '02.

Black Hills Science Club: 38:119, Fe '38.

California Teachers' Association: 12:436, My '12; and 13:829, De '13.

California Teachers of Mathematics: 6:157-8, Fe '06; and 10:266-7, Mr '10.

Central Iowa Association of Science and Mathematics Teachers: 6:531-2, Je '06; 6:633-4, O '06; 7:542-3, Je '07; and 8: 167, Fe '08.

Chicago Mathematics Club: 34:438-40, Ap '34.

Cleveland Biology Teachers Clubs: 24:241-6, Mr '24.

Cleveland Schoolmasters' Club: 25:462-74, My '25; and 25:600-10, Je '25.

Colorado Mathematics Society: 6:75, Ja '06; 8:165-6, Fe '08; and 9:493-5, My '09.

Colorado State Science Teachers: 6:632-3, O '06.

Connecticut Science Teachers' Association: 6:632, O '06.

Cook County and Chicago High School Association: (Mathematical Supplement) 1:38-40, Ap '03.

Council of Supervisors of Elementary Science: 34:209, Fe '34.

Illinois Council of Teachers of Mathematics: 55:549, O '55; 57:174, Mr '57; 58:306-7, Ap '58; 58:502, Je '58; 59:197, Mr '59; and 60:186, Mr '60.

Illinois State Academy of Science: 8:146-7, Fe '08; 10:339-40, Ap '10; 16:463-4, My '16; 21:578, Je '21; 22:329, Ap '22; 22:383, Ap '22; and 23:726-7, N '23.

Indiana Association of Science and Mathematics Teachers: 6:533-5, Je '06; 7:543-5, Je '07; 8:530-2, Je '08; 9:620, Je '09; 11: 568, Je '11; 13:256, Mr '13; 13:534-8, Je '13; 14:456-8, My '14; 15:532-3, Je '15; and 17:83, Ja '17.

Indiana High School Chemistry Teachers: 37:372, Mr '37.

Indiana State Science Teachers' Association: 1:165-6, My '01; 2:242, O '02; 3:187-8, Je '03; and 5:489-90, Je '05.

Indiana State Teachers' Association: 6: 241-2, Mr '06.

Inland Empire Teachers' Association: 21: 581, Je '21.

International Commission on the Teaching of Mathematics: 9:489, My '09; 9:603-8, Je '09; 12:159, Fe '12; and 14:185, Fe '14.

International Congress of Mathematics: 39: 125, Fe '39.

Iowa Association of Mathematics Teachers: 12:246, Mr '12; 16:271, Mr '16; 17:82, Ja '17; and 18:178, Fe '18.

Iowa Association of Science Teachers: 8: 528-9, Je '08; 9:313-7, Mr '09; 10:169-71, Fe '10; 11:79, Ja '11; and 11:382-3, Ap '11.

Iowa State Teachers' Association: 6:241, Mr '06; 7:150, Fe '07; and 34:25, Ja '34.

Kansas Association of Mathematics Teachers: 9:408, Ap '09; 10:78-9, Ja '10; 10:839-40, De '10; 12:159-60, Fe '12; 13:255, Mr '13; 15:180-1, Fe '15; and 16:83, Ja '16.

Kansas State Teachers' Association - Science Section: 3:525-6, Mr '04.

Mathematical Association of America: 16: 269, Mr '16; 29:330, Mr '29; 30:264, Mr '30; 31:230, Fe '31; 32:267, Mr '32; and 34:306, Mr '34.

Mathematical Club of the University of Illinois: 5:300-1, Ap '05.

Michigan Academy of Science: 5:483-9, Je '05.

Michigan Conference of Mathematics Teachers: 51:337, Ap '51; 52:421, My '52; 53:200, Mr '53; 54:115, Fe '54; 55:103, Fe '55; 56:299, Ap '56; 57:290, Ap '57; 58:340, My '58; and 59:245, Mr '59.

Michigan Schoolmasters' Club: 1:170-3, My '01; 2:124-7, Ap '02; 2:187-91, My '02; 3: 116-8, My '03; 4:111-20, My '04; 6:420-2, My '06; 15:366, Ap '15; 15:533-4, Je '15; and 17:532, Je '17.

Milwaukee Biology Teachers: 15:356, Ap '15.

Missouri Society of Teachers of Mathematics: 5:497-500, Je '05; 6:72, Ja '06; 6:237-41, Mr '06; 6:711-6, N '06; 7:339-41, Ap '07; 7:618, O '07; 11:664-5, O '11; and 21:786, N '21.

National Association of Teachers' Agencies: 15:736, N '15.

National Council of Geography Teachers: 47: 96-9, Ja '47; and 49:172, Fe '49.

National Council of Mathematics Teachers: 22:478-80, My '22; 25:871-2, N '25; 26:990-3, De '26; 28:180, Fe '28; 48:215, Mr '48; 48:610, N '48; 51:336-7, Ap '51; and 56: 422, My '56.

National Council of Teachers of Mathematics: 34:510, My '34; 36:338-40, Mr '36; 37:626, My '37; 38:975, De '38; 39:116, Fe '39; and 46:197-8, Fe '46.

National Council on Elementary Science: 40: 127, Fe '40; and 55:166, Fe '55.

National Education Association: 1:227-9, Se '01; 1:280-3, O '01; 1:333-7, N '01; 2:243-9, O '02; 2:303-10, N '02; 3:230-44, O '03; 6:330-1, Ap '06; 8:517-21, Je '08; 12:546, Je '12; 13:9, Ja '13; 13:79, Ja '13; 14: 732-3, N '14; and 35:666-8, Je '35.

National Research Council: 23:679-80, O '23.

National Science Teachers' Meeting: 55:166, Fe '55; and 60:104, Ja '60.

National Society of College Teachers of Education: 29:150, Fe '29.

National Society of Teachers of Mathematics and Science: 5:589-91, O '05.

Natural Science Association of Ontario: 1: 164-5, My '01; 2:186-7, My '02; 5:586-8, O '05; and 6:632, O '06.

Nebraska Teachers' Association: 5:219, Mr '05.

New England Association of Chemistry Teachers: 1:49-50, Mr '01; 1:167-70, My '01; 1:390-2, De '01; 2:119-20, Ap '02; 2: 184, My '02; 2:469-73, Fe '03; 3:183-4, Je '03; 4:47-50, Ap '04; 4:177-80, Je '04; 5: 490-6, Je '05; 6:242-3, Mr '06; 7:151-2, Fe '07; 10:555, Je '10; 10:838, De '10; 11: 382, Ap '11; 15:452, My '15; 21:402, Ap '21; 21:476, My '21; 21:564, Je '21; 21:892, De '21; 22:184, Fe '22; 22:392-4, Ap '22; 22: 496-8, My '22; 22:80, Ja '22; 22:871-2, De '22; 24:308-9, Mr '24; 25:304-5, Mr '25; 25:652, Je '25; 40:207, Mr '40; 41:411, My '41; 43:516, Je '43; 44:593, Je '44; 46: 593, Je '46; 50:444, Je '50; and 53:399-400, My '53.

New Jersey State Science Teachers' Association: 6:528, Je '06; 7:432-3, My '07; 7: 787-8, De '07; 16:371, Ap '16; 17:648-9, O '17; 34:90, Ja '34; 37:1044, De '37; and 53:745, De '53.

New Jersey Teachers' Association: 15:169, Fe '15; and 16:271, Mr '16.

New Physics Club: 5:220, Mr '05.

New York Association of Biology Teachers: 2:49-51, Mr '02; 2:185-6, My '02; 2:420-4, Ja '03; 2:469, Fe '03; 3:34-9, Ap '03; 3: 423-4, Ja '04; 5:776, De '05; 6:634-5, O '06; 7:705-6, N '07; and 10:267, Mr '10.

New York Chemistry Teachers' Club: 2:118, Ap '02; 2:419-20, Ja '03; 5:296-7, Ap '05; 6:528-31, Je '06; 6:795, De '06; and 7:150-1, Fe '07.

New York Physics Club: 1:174, My '01; 2: 54-5, Mr '02; 2:118, Ap '02; 2:418, Ja '03; 2:540-2, Mr '03; 3:114-5, My '03; 4:462-3, Fe '04; 5:502-4, Je '05; 6:155-6, Fe '06; 6:330, Ap '06; 6:710-1, N '06; 8:159-60, Fe '08; 12:248-9, Mr '12; and 13:533, Je '13.

New York State Science Teachers' Association: 1:499-505, Fe '02; 2:51-3, Mr '02; 2:120-3, Ap '02; 2:542-5, Mr '03; 3:40-8, Ap '03; 3:535-42, Mr '04; 4:51-60, Ap '04; 5:207-13, Mr '05; 5:291-6, Ap '05; 6:237, Mr '06; 12:249-50, Mr '12; 13:256-8, Mr '13; 14:354-5, Ap '14; 17:468-71, My '17; and 29:324-5, Mr '29.

New York State Teachers' Association: 5: 213-8, Mr '05; 5:299-300, Ap '05; 15:535-6, Je '15; 15:831, De '15; 16:270, Mr '16; and 16:558-60, Je '16.

North Carolina Association: 21:351, Ap '21.

North Dakota Association of Science and Mathematics Teachers: 8:76-8, Ja '08; and 12:160, Fe '12.

Northeastern Ohio Association of Science and Mathematics Teachers: 10:557, Je '10.

Northern California Conference on Science Teaching: 25:873-4, N '25.

Northern California Mathematics Teachers: 8:528, Je '08.

Ohio Teachers of Science and Mathematics: 14:367, Ap '14.

Oklahoma Academy of Science: 38:346-7, Mr '38.

Ontario Educational Association: 4:174-5, Je '04; 7:542, Je '07; 9:618, Je '09; 9: 704, O '09; 10:556, Je '10; 11:572, Je '11; 13:625, O '13; and 14:527, Je '14.

Oregon State Science and Mathematics Teachers' Association: 16:268-9, Mr '16; and 17:464, My '17.

Pacific Coast Association of Chemistry and Physics Teachers: 6:235-7, Mr '06; 7:62, Ja '07; 9:870, De '09; 11:174, Fe '11; and 13:735, N '13.

Pennsylvania Association of Science and Mathematics Teachers: 6:420, My '06.

Pennsylvania State Teachers' Association: 7:240-1, Mr '07.

Philadelphia Regional Committee on Science and Mathematics Teaching: 42:706-7, O '42.

Physics Club of Philadelphia: 10:447, My '10.

Science Teachers of Wisconsin Normal Schools: 1:229-30, Se '01.

Society for Plant Morphology and Physiology: 2:159-65, My '02.

South Dakota Association of Science and Mathematics Teachers: 7:787, De '07; and 9:94, Ja '09.

Southern California Science and Mathematics Association: 9:187-8, Fe '09; 9:479, My '09; 9:618-9, Je '09; 10:87-8, Ja '10; 11: 276, Mr '11; 12:247, Mr '12; 13:625-6, O '13; 14:265-7, Mr '14; 16:370-1, Ap '16; 17:559-60, Je '17; 18:283, Mr '18; 18:563, Je '18; 22:388-92, Ap '22; 23:280-1, Mr '23; 24:770-2, O '24; and 25:745, O '25.

Upper Peninsula Educational Association: 2:368-9, De '02; and 3:422-3, Ja '04.

Utah Academy of Science: 8:528, Je '08.

Wisconsin Association of Mathematics Teachers: 12:65, Ja '12.

Wisconsin State Teachers' Association: 32: 243, Mr '32.

Woman's Mathematics Club: 36:992, De '36.

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